LIBRARY OF CONGRESS
DEC 27 1904
PERIODICAL DIV.

The American Artisan
AND HARDWARE RECORD

Vol. 48. No. 26. CHICAGO, DECEMBER 24, 1904. $2.00 Per Year.

BOMMER SPRING HINGES
(ESTABL. 1876.)
ARE THE BEST
BOMMER BROTHERS, MF'RS. 256 to 276 CLASSON AVE. BROOKLYN, N.Y.

Plow Bolt Season is Now Here

If you want the best, send your orders to
Columbus Bolt Works,
Columbus, O.

FURNACE CHAINS
Write US before contracting on this line.
ONEIDA COMMUNITY
General Offices, ONEIDA, N. Y.

"The man who whispers down a well
About the goods he has to sell,
Won't reap the golden, gleaming dollars,
Like one who climbs a tree and hollers."

WE MAKE
Stove, Tire and Carriage Bolts—Rods, Rivets, Machine Screws, Nuts, Hinge Pins and Special Bolts, Screws and Nuts of all descriptions
THE ATLAS BOLT & SCREW CO.
Cleveland, O.

Always On Top
Any weak spot in your roofs should be attended to now. A leaky roof can cause an immense loss on short notice. American Seal Elastic Oil Cement is sure cure. If your roof is old and cannot be soldered this is the one thing to use. American Seal Roof Paints, Metallic and Graphite, preserve and protect. None better, none just as good. Prices are right even if the quality is the very best.
Agencies: J. L. PERKINS & CO., 235 Lake St., CHICAGO, ILL.
STOCKHOFF SUPPLY CO., 107 N. Main St., ST. LOUIS, MO.

BLACK DIAMOND FILES AND RASPS
PERFECT—ALWAYS
TWELVE MEDALS AWARDED AT INTERNATIONAL EXPOSITIONS
G. & H. BARNETT CO.
Black Diamond File Works PHILADELPHIA

"TRIUMPH" CHAIN
HAS TWICE THE STRENGTH OF WELDED.
SEND FOR FREE SAMPLES, TABLE OF TESTS AND ASK QUESTIONS.
THE BRIDGEPORT CHAIN CO., Bridgeport, Conn.
OVER TEN MILES OF CHAIN PER DAY. WE LEAD.

Gentlemen:

We wish you a MERRY CHRISTMAS.

We might be more eloquent, but we could not be more sincere.

Yours respectfully,

Pittsburgh Stove & Range Co.

1904 PITTSBURGH, PA.

Santa Claus

would be delighted

to carry each of his dear children's mamma's a *Home Pride Malleable-Steel Range.* He can't always do it you know, for even Santa can't buy Home Pride except through the dealer.

Our Home Pride

Pride of the Home

If Mr. Dealer will only give Santa a chance, he will do the rest. The finish is a surprise to one so well posted as Santa Claus and the weight staggers him.

Home Pride Range Co.

Marion : Indiana

QUICK MEAL

Gasoline and Oil STOVES

For 1905

Grand Prize and Gold Medal

Can start the new season with Greater Laurels than ever having received **THE GRAND PRIZE** (Highest Award) and **GOLD MEDAL** at the **GREAT ST. LOUIS WORLD'S FAIR.**

"Quick Meal" Gasoline and Oil Stoves take first place wherever shown. They do the work. They please the eye and they satisfy the user. The **DEALER** who handles these stoves takes first place with his customers and is soon the acknowledged leader of his line.

Now is the time to secure the agency for 1905. Don't wait to see what line your competitor selects. If you do, you will have second choice as the best goods are always selected first.

RINGEN STOVE CO.

DIV. OF AMERICAN STOVE CO.

ST. LOUIS.

San Francisco, Cal.
45 and 47 Bluxome St.

Portland, Ore.
4th and Davis Sts.

Reliable Vapor Stoves

"The kind that gives perfect satisfaction to all"

Our 1905 line contains 50 sizes & styles

All Quick and Profitable Sellers

No. 8 RELIABLE

"No drip cup to fill" "Started like a gas range"

"RELIABLE" stoves are constructed according to the safety requirements of the National Board of Fire Underwriters and are on their list of "Permitted Stoves."

New Catalogues
New Prices
New Agency Terms

THEY WILL INTEREST YOU—WRITE FOR THEM NOW

SCHNEIDER & TRENKAMP CO.

(Div. of American Stove Co.)

CLEVELAND **CHICAGO**

AWARDED GRAND PRIZE (HIGHEST AWARD) AND GOLD MEDAL, WORLD'S FAIR, ST. LOUIS.

A Merry Xmas

To every Stove dealer in the land, regardless if he handles Globe Stoves and Ranges--Made in Kokomo.

We have just issued our Thirty-third Annual Catalog. It is a beauty. Finest ever. You will want one to familiarize yourself with Globe Stoves and Ranges--Made in Kokomo.

Our new catalog illustrates Globe Oaks and Globe Hot Blasts--Made in Kokomo.

Our new catalog illustrates our complete line of 192 styles and sizes of Globe Steel Ranges--Made in Kokomo.

Globe Steel Ranges in eight grades and varieties--Made in Kokomo.

Globe Steel Ranges for any and every fuel--Made in Kokomo.

Globe Steel Ranges for every requirement--Made in Kokomo.

Send a postal to-day for our magnificent book illustrating Globe Stoves and Ranges--Made in Kokomo.

We extend to all the

Compliments of the Season

Globe Stove & Range Company

KOKOMO, INDIANA

M
TRADE MARK

MOORE'S STOVES

PEACE
ON EARTH

GOOD WILL
TOWARD MEN

The Joliet Stove Works
JOLIET, ILL.

WE are specially grateful to our friends of the passing year, as they have been more numerous and more generous than ever before. We thank you all for a most prosperous season and wish you a Merry Christmas and successful New Year.

The Chicago Stove Works,

Blue Island Avenue and 22nd Street,

CHICAGO.

For the most successful year it has ever been our lot to enjoy, we beg to thank our friends in the trade. We wish them all joy and prosperity—a Merry Christmas and a Most Happy New Year.

Gem City Stove Co.

Dayton, Ohio

Greeting

The Jury of Awards by power invested by authority of the Louisiana Purchase Exposition, have officially certified that

THE GRAND PRIZE

the Highest Official Award was conferred upon **The Jacob J. Vollrath Mfg. Co.**

It is the Highest Official Honor for "Excellence in the Production of Colored and Plain Stamped Steel and Cast Iron Enameled Wares."

Always Foremost, Never Behind

It is first or nothing with us All competition snowed under

This Official Award is only a confirmation of that bestowed by the trade on the well known increasingly popular

The "Ware of Quality."

VOLLRATH WARE

The International Enameled Ware.

THE JACOB J. VOLLRATH MANUFACTURING CO.

Executive Offices and Works:
SHEBOYGAN, WISCONSIN, U. S. A.
Chicago Offices and Salesrooms:
175-177 East Lake Street.

BRANCHES:
New York, 25 Warren Street
Minneapolis, 212-14 Commercial St.
San Francisco, 409 Market Street

THE LARGEST MAKERS OF SHEET STEEL STOVES IN THE WORLD

WE MAKE

OIL HEATERS
GAS HEATERS
AIR TIGHT STOVES
LAMP STOVES
CYLINDER STOVES

EVERY ONE A LEADER

and a little better than anything else on the market.
Write for descriptive circulars and prices.

NATIONAL ENAMELING AND STAMPING COMPANY.

NEW YORK BALTIMORE CHICAGO
ST. LOUIS MILWAUKEE NEW ORLEANS.

VAN'S RANGE

Patent Improved Wrought Steel Portable

For Hotels, Restaurants. Public Institutions, Boarding Houses, and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The John Van Range Company

419 Elm and 410, 412, 414 and 416 Home Streets

CINCINNATI, - - - - - OHIO

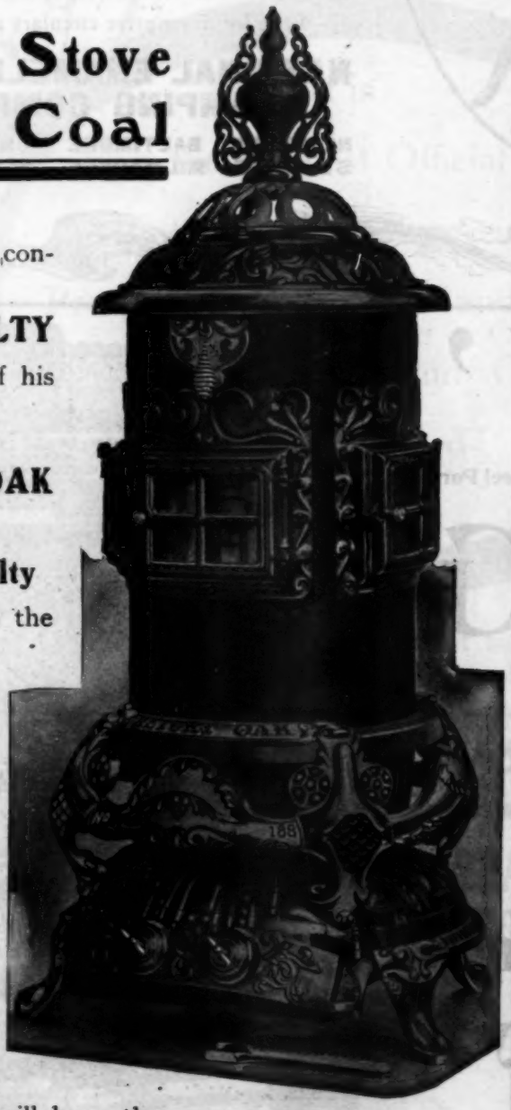
STAR SHOVELS
STAR SHOVEL & RANGE CO.
VINCENNES, IND.
SPADES AND SCOOPS
WARRANTED

Vincennes, - Indiana.

RETORT OAK

Nos. 166, 188, 222

Magazine Stove for Soft Coal



The dealer who can control a

GOOD SPECIALTY

has the advantage of his competitors.

THE RETORT OAK

is the

Greatest Specialty

in heating stoves in the market.

Its reputation is firmly established and no mistake can be made by making it your

LEADER

Write us for Catalogue and prices for 1905 and wait for our travelers who start out January 9, 1905.

We will have them see you.

MARION STOVE CO.

MARION, INDIANA

Gray's Perfect Elbow Patterns

ON HEAVY BLUE PRINT PAPER

From one inch to 40 inches. Made in 2-3-4-5-6-7 and 8 pieces. 160 patterns and angle chart showing all angles and degrees of same gotten from 160 patterns. An exhaustive work strongly recommended by eminent critics.

Price $2.00, prepaid

Gray's Perfect Skylight Patterns

For Single Pitch Skylights
For Gable Skylights
For Hip Skylights

Contains 6 to 8 and 10 inch ventilator patterns and skylight chart, giving the length to cut hip and rafter bars for any sized skylight up to 24 ft. wide, for ⅓ pitch skylights. Full set of patterns and charts.

Price $3.50, prepaid

DANIEL STERN

69 Dearborn St.

CHICAGO

DON'T FOR THE PAY
BLACK KID
STOVE POLISH
IF NOT THE BEST YOU EVER USED
PUT UP IN 5-lb. CANS
NICKEL PLATE STOVE POLISH CO.
MANUFACTURERS, CHICAGO
PRICE, 65c PER CAN

Victor Gold Coin
Four Hole Cast Ranges
with Reservoir on Base for Hard or Soft Coal or Wood Duplex Grates.
No. 371—8/19-4-8 in. holes, weight 362, price $16, cash with order.
No. 372—9/19-4-9 in. holes, weight 367, price $16, cash with order.
No. 373—8/21-4-8 in. holes, weight 375, price $18, cash with order.
If wanted with high shelf add $3.00 to above prices.
The Chicago Stove Works
Blue Island Avenue and 22nd Street, Chicago.

SCHLAFER HARDWARE CO
APPLETON, WIS.
WRITE:
"Please discontinue the "ad" in your paper in the Help Wanted column, as we have more applications now than we can answer."

"I AM DE COOK; DE HUB RANGE AM DE COOKER"

Any dealer looking for the best, most attractive, up-to-date and complete line of Ranges in America, should at once secure the sale of the
HUB
SMITH & ANTHONY COMPANY, 48-54 UNION STREET, BOSTON, MASS.
Manufacturers of Cooking and Heating Apparatus of Every Style and Description.

FURNACES
PIPE ELBOWS
REGISTERS
and SUPPLIES
WRITE FOR CATALOG
CHICAGO FURNACE SUPPLY CO., CHICAGO

Illery & Jones
Gibson City, Ill., Write:
"You will please take out our ad. for tinner and plumber, as we have a man who read the ad. in your paper, and several others from others. Your paper certainly reaches the craft."

"CALORIFIC" HEAT PRODUCER

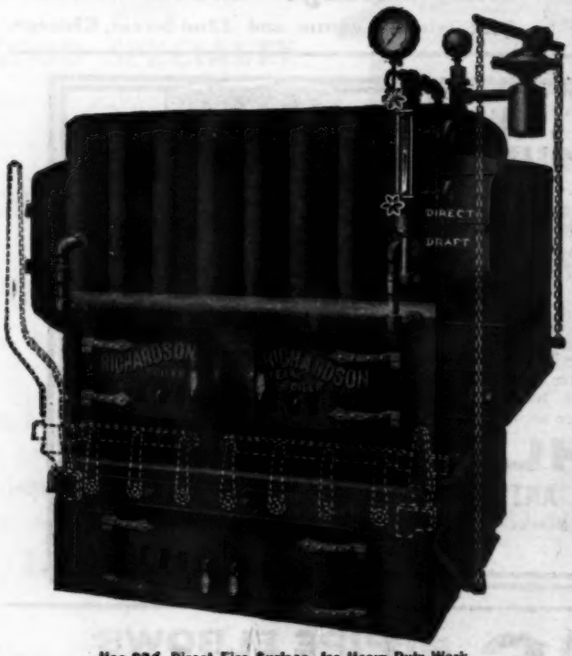
Showing Internal Construction.

Has enormous heating capacity.
Economical in coal.
Sends heat to any part of building.
Wonderful results produced during the last cold winter.
Fire is in direct contact with heating surface.
Has double the radiating surface usually found.
Does large and satisfactory heating.
Many in use. NO EXPERIMENT.

SEND FOR CIRCULARS.

ALSO CELEBRATED

"RICHARDSON" BOILERS — STEAM AND WATER



Has 92% Direct Fire Surface, for Heavy Duty Work
Steam, 2,400 to 4,900 ft. Capacity Water, 3,800 to 7,200 ft. Capacity
6 SIZES.

The Boilers for the Trade to Handle.

—

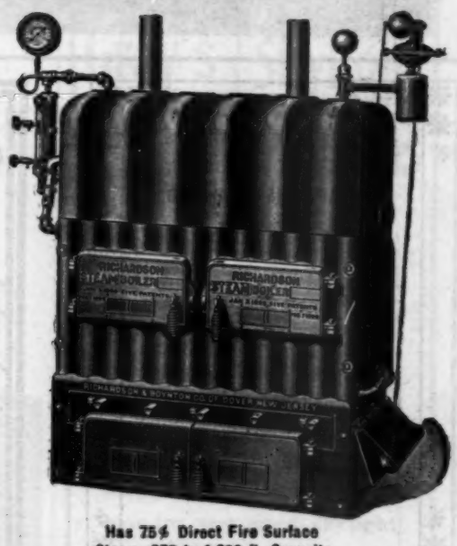
Prices Right.

—

Easily Set.

—

They Please Everybody.



Has 75% Direct Fire Surface
Steam, 275 to 1,800 ft. Capacity
Water, 450 to 2,800 ft. Capacity
13 SIZES.

No Boilers ever made doing such wonderful heating. Several thousand in use, giving splendid satisfaction.

BOILERS OF GREATEST KNOWN POWER

Send for Prices and Circulars.

RICHARDSON & BOYNTON CO., Mfrs.

234 Water Street, NEW YORK.

84 Lake Street, CHICAGO **51 Portland Street, BOSTON**

Merry Christmas

A rich old retailer told us a few days back that there were three classes of heater customers to whose trade he catered:—those who were fitting up new buildings, those whose old heaters were played out, and those who were looking for something better. Some dealers are only after the first two classes. They apparently aren't aware of the existence of the third. Have you noticed that these dealers don't handle Mueller's? Mueller's show up strongest where the competition is strongest.

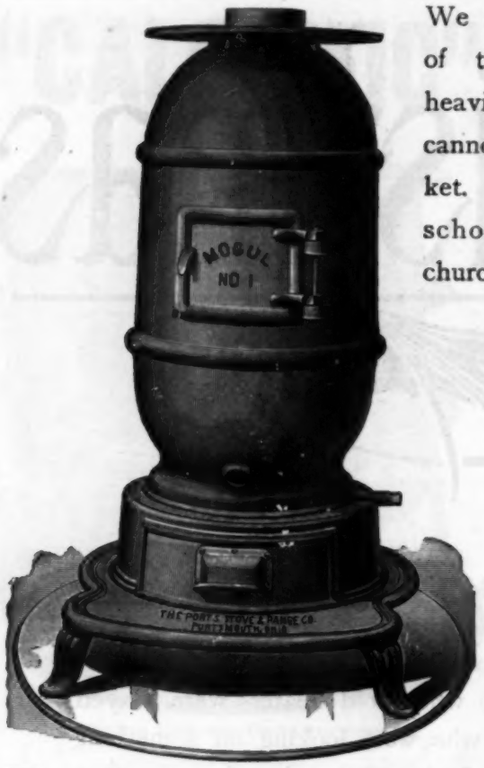
L. J. MUELLER FURNACE CO.,

191 Reed Street, Milwaukee, Wis.

Established 1857.

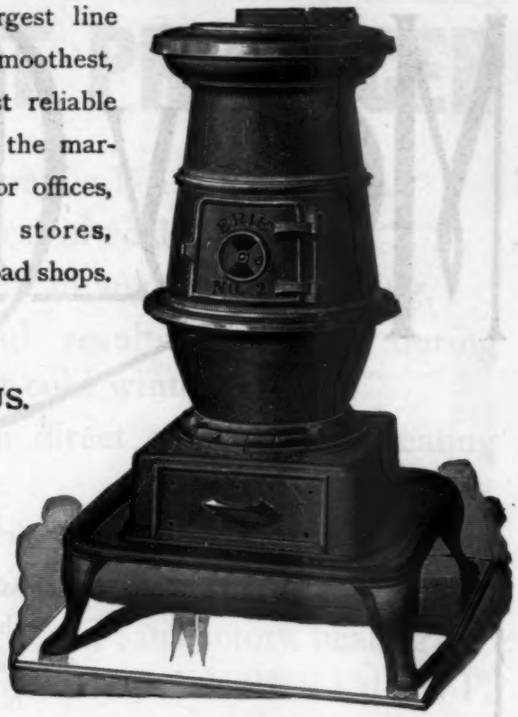
Heating boilers and furnaces and registers and fittings.

Happy New Year



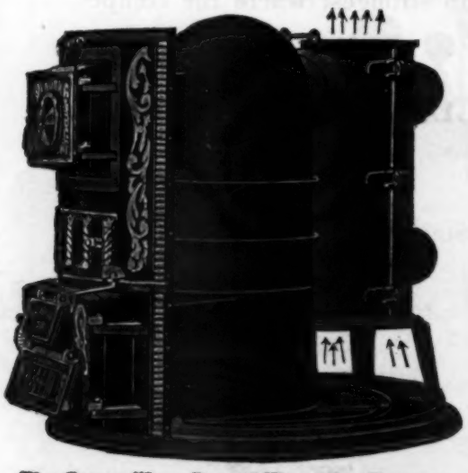
We make the largest line of the best, smoothest, heaviest, and most reliable cannon stoves on the market. Suitable for offices, school houses, stores, churches and railroad shops.

WRITE US.



The Portsmouth Stove & Range Co.,
PORTSMOUTH, OHIO.

MORLEY BROS., Saginaw, Michigan
Wholesale Agents for Michigan



The Crown "Low Down" Warm Air Furnace

IT WAS A CRIME,

Punishable same as theft, to burn coal in London in 1830. Time proves the value of many things, among them is the fact that the

Low Down Crown Furnace

Leads all others in the economy of fuel consumed; more than that it is simpler in construction, more easily cased, installed, sold, cleaned, managed and repaired.

Severe usage is the lot of most furnaces, and only a furnace that is made extra heavy throughout will stand it.

The Crown Furnace "LOW DOWN" TYPE—MADE IN FOUR SIZES

Is such a furnace. It also has an extra large amount of radiation for the size of the fire-pot used. This furnace can be cleaned with the greatest facility.

ASK FOR OUR 1904 FURNACE BOOK

MARCH-BROWNBACK STOVE CO.
POTTSTOWN, PA.

WHEN a logger places a wedge in a log and hits it a blow he does not know how much of a split the effort will make, but he does know that if he continues to hit the wedge the log will soon lie in twain. The driving wedge to business is advertising. You cannot expect to make your success with a single ad, no matter how large. Continual rapping does it.

WE cordially thank the trade for their many kind favors during the past year, and wish them one and all a Merry Christmas.

To be honest, to be up to date, to be relentlessly persevering in the interests of our patrons has been our earnest and ultimate endeavor. We thank *all* our customers, but, most of all, we thank those who by their uninterrupted patronage have shown their constant appreciation through all these long years.

We extend the compliments of the season, and remain,

Yours very sincerely,

The Boynton Furnace Co.

147-149 Lake Street, CHICAGO

207-209 Water St., NEW YORK

SPECIAL CHRISTMAS EDITION OF

THE STOVE TRADE NEWS

VOL. 3 CHICAGO, DEC. 24, 1904 No. 2

Issued Occasionally in the Interest of Western Stove Dealers

JOHN KONTNY, Editor.

PLACE OF PUBLICATION,
65-67 North Desplaines Street, Chicago.

EDITORIAL.

HERE'S to 1905.

MERRY Christmas.

HAPPY New Year.

DID you use your wife's stocking?

ALL signs point to an unusually large demand for stoves next year.

IF our business is any criterion of general conditions 1905 will be a banner stove year. If more stoves aren't sold next year than ever before we'll be surprised.

DEALERS tell us that they find customers are growing more critical and are demanding quality more and more.

"Here's to those that we love
Here's to those that love us.
Here's to those that love those that we love
And to those that love those that love us!"

SOME people hope for *nothing* and get *more* than than they hope for. Some people hope for *something* and get *less* than they hope for. The latter are usually disappointed but the *less* is greater than the *more*; and besides they always have the range when Mrs. Sellmequick comes around. Don't be a pessimist. We heard there were some pessimists this last year. We know of a live stove jobber who sold more goods than ever before because so many other jobbers and manufacturers were pessimists.

"Let us then be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait."

THE past year has been one of exceptional prosperity for us. Our sales for the past month are more than triple what they were for the same period in 1903. We take this opportunity to announce to our many friends and patrons in the trade our sincerest appreciation of their generous patronage and to assure them that we are better situated than ever before for caring for their wants.

66,000

That's a good many, but it represents the actual amount of floor space in our new building. 66,000 square feet mean prompt shipments. Prompt shipments mean satisfied customers. The choice of a jobber means a whole lot to the dealer. A good jobber means speedy deliveries, a saving in freight charges, careful consideration in the pressing of financial claims and conscientiousness in the filling of orders.

WANT ADS.

WANTED—One dealer who has not obtained satisfaction from the sales of Red Cross stoves, ranges, furnaces. Address, J. K., care Stove Trade News, 65-67 N. Desplaines St., Chicago.

TRIUMPH Hot Air Furnaces

RED CROSS Stoves

RED CROSS Ranges

I am their agent.

JOHN KONTNY
65-67 N. Desplaines St., Chicago

Merry Christmas to One and All. Many Thanks for your Many Favors.

JOHN KONTNY
Stove Specialist
65-67 N. Desplaines St.
CHICAGO.

MERRY CHRISTMAS

Triumph Hot Air Furnaces

Triumph Steam Heaters

Triumph Hot Water Heaters

THE CRAIG-REYNOLDS FDY. CO.,
DAYTON, OHIO.

JOHN KONTNY, Western Agent,
65-67 N. Desplaines St., CHICAGO.

HAPPY NEW YEAR

IN WHICH DIVISION ARE YOU?

SECTIONAL VIEW
Showing inside and outside casings, and positive cap attachment over the flues through which warm air is forced to distant rooms.

Dealers who sell Hot Air Furnaces may be divided into two classes: Those who endeavor to be the lowest bidders in order to secure the contract; and those who, by persuasion and argument, secure the contract, even at high prices.

The Dealers in the former Division are merely drifting along, with an uncertain future.

The Dealers in the latter class are making money. To those far-sighted Dealers who know the value of "talking points," and who have the ability to present them, the KELSEY Warm Air Generator offers a great field.

KELSEY Generators are being installed in the better class of Heating jobs—because the KELSEY exclusive features instantly appeal to everyone who compares the merits of the KELSEY with any Furnace.

If you're interested in securing more business, and at a wider margin of profit, you'll find our Agency Proposition attractive.

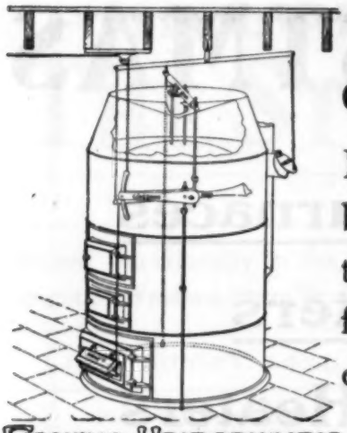
Write for it.

"THERE'S ONLY ONE WARM AIR GENERATOR."

KELSEY HEATING COMPANY, SYRACUSE, N. Y.

New York City:
156 FIFTH AVENUE

Western Sales Agents:
COOK & VAN EVERA CO., 38 E. Lake St., CHICAGO, ILL.
JAMES SMART MFG. CO., Ltd., Brockville, Ont., Sole Makers for Canada.



FARQUHAR GOVERNOR

Can be Used with any Furnace

Do you know that when St. Nicholas begins his round of the chimneys, there's just about one chance in every four that he'll find a Farquhar Governor at the lower end?

They're so easily put up, are so simple in construction and possess such feasible advantages, that they are being introduced into almost every home.

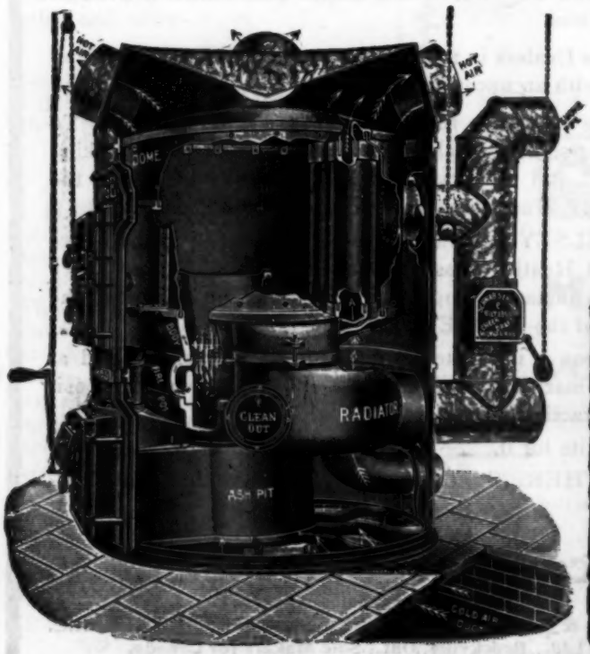
FARQUHAR HEAT-REGULATOR CO.
MANUFACTURER,
WILMINGTON, OHIO.

FLATIRON FURNACE

with it's Self-Cleaning, Marvelous Power, Large Radiating Surface, Gas and Smoke-Tight Joints, Long Smoke Travel, is the

FUTURE FURNACE

THE MISKIMEN FURNACE CO. LOGANSPORT, INDIANA.



The GILT EDGE For SOFT COAL

The GILT EDGE Furnace, fitted with low-down Radiator, was specially designed for burning soft coal with perfect combustion of the gases,—and the GILT EDGE fulfills its mission!

The Fire Pots are very heavy; it is fitted with double feed doors for burning block wood; it has two heavy cast iron flues in the rear of the large dome, greatly increasing the capacity; and the GILT EDGE Keystone joint is absolute insurance against the escape of gas or smoke.

Our Catalogue illustrating and describing the entire GILT EDGE line, with prices and discounts, on request.

R. J. Schwab & Sons Co., Milwaukee, Wis.

Turn Over a New Leaf!

With the New Year why not turn over a new leaf! Why not discard the old theories, proven false in practice? Why not investigate the merits of a Furnace that will "stand up" under any and all conditions?

The FRONT RANK Steel Furnace is no experiment, yet it embodies new ideas and new principles that have been tried and found correct.

The FRONT RANK Steel Furnace offers a grand opportunity to live Dealers,—Dealers who know the value of selling a Furnace that differs from other Furnaces, and that can be relied upon in every job.

May we send you our catalogue and prices?

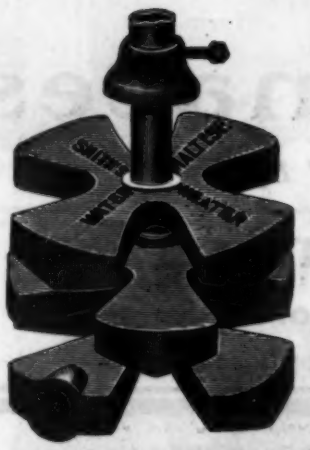
HAYNES-LANGENBERG MFG. CO.,
2301-2309 Lucas Ave., SAINT LOUIS, MO.

"CAN'T"

is the password to mediocrity, if not to failure. When the man of moderate means comes to you Mr. Furnace Dealer and asks for estimates on warm air heating for an odd shaped house and you say to him: "There are three rooms in the house you *can't* heat with a furnace, but a $750 hot water job will heat the house nicely,"—you are throwing away money. If a furnace will heat all but three rooms then

Smith's Maltese Water Heater

will heat those three. Suppose, again, that the furnace is already in and the irate householder phones you to take out the dodgasted contraption because the dining room and west chamber can't be heated. Don't get chicken-hearted and lay down. Don't get cocky and start a lawsuit. Simply bolster up the heating of the rooms in question with a Maltese Water Heater and instead of cursing the memory of your respected ancestors the householder will turn around and declare you are the only furnace man living and that the heating men in St. Louis and Chicago are lucky because you don't move up there and get all their business away from them.



WRITE FOR CATALOGUE

CHAS. SMITH COMPANY
101 Lake Street, CHICAGO
OMAHA STOVE REPAIR CO., Omaha, Neb., Western Agents
Manufacturers of HERO—the "Cold Climate" Furnace

MONCRIEF

WARM AIR FURNACE.

Specialties:
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity, Durability, Economy.
- Cleanliness in Use.

HENRY & SCHEIBLE CO.
6-8-10 Long St., Cleveland, O.
Sales Agent—J. C. KIMMEL, 2314 East 15th St., Kansas City, Mo.

CUT THIS OUT

To the Publishers **The American Artisan and Hardware Record**
69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name.....

Address..... Town..... State.....

The Champion Hot Water Combination Heaters

They Fit Any Furnace

These Heaters are made in five sizes diameter, and from 50 to 700 square feet radiation capacity.

Will heat those cold rooms or an addition to the building. Will increase the capacity of any furnace. Are cheaper than coils and will do more work.

Write for new circular. Manufactured by

FRANK D. STOLZ
156 Webster Avenue, Chicago, Ill.

AGENTS: Co-Operative Fdy. Co., Rochester, N.Y.; Kelsey Heating Co., Syracuse, N.Y.; Kellogg-Mackey-Cameron Co., Chicago, Ill.; Kellogg-Mackey-Cameron Co., Minneapolis, Minn.; Keith Furnace Co., Des Moines, Iowa; Stockhoff Supply Co., St. Louis, Mo.; Bundle-Spence Hdw. Co., Milwaukee, Wis.; S. R. Sexton & Sons, Baltimore, Md.

The STORM KING FURNACE

We're never satisfied to let well enough alone.

Perhaps that explains the gradual evolution of the Storm King from *one* of the best furnaces on the market to *the* best.

Have you seen the air blast attachment on this year's Storm King? It certainly makes the combustion of the gases more perfect and prevents radiation in basement thru feed door.

REMEMBER

We are General Northwestern Agents for Gem Hot Water and Steam Boilers and manufacturers of Ideal Furnace Pipe and Fittings.

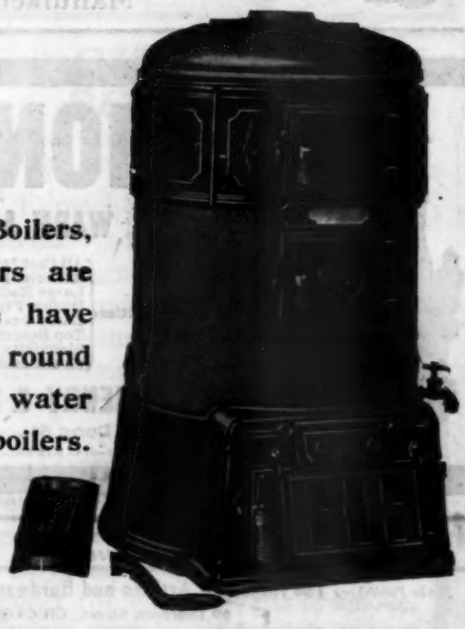
The ROBERTS HEATING & VENTILATING CO.
213-215-217 SOUTH THIRD ST., MINNEAPOLIS, MINN., U. S. A.

Wise People
buy
Wise Furnaces
Manufactured by
The Wise Furnace Co.
Akron, Ohio.
Catalogue and discounts sent on application.

HEAT LIGHT
FOR THE
HOME
STORE
HOTEL
SCHOOL
CHURCH
OFFICE
COLLEGE
THEATRE
FACTORY
VILLAGE
INFORMATION FREE
SEND FOR IT.
DETROIT HEATING AND LIGHTING CO.
DETROIT MICH.

The Classified Index Has Page Numbers

Floral City



Hot Water Boilers, Steam Boilers are leaders. We have a full line of round and sectional water and steam boilers.

Write us for catalogue.

Monroe Foundry & Furnace Co.
Monroe, Mich.

Tuberculosis

annually kills off as many individuals as all other ills combined. Tuberculosis is just **one** result from the constant inhalation of impure air. Bad air affects the blood, the skin, the stomach, the heart, the brain—everything. Don't you think that's a pretty good argument for the **universal** adoption of the

Grossius' School-Room Ventilating Stove?

If you're a bit curious, write us, and we'll loosen up with some interesting information on this subject.

The John Grossius Furnace Co., 409-411 East 8th Street CINCINNATI, OHIO

EMPEROR FURNACES

FOR WOOD

SIMPLE SAFE DURABLE

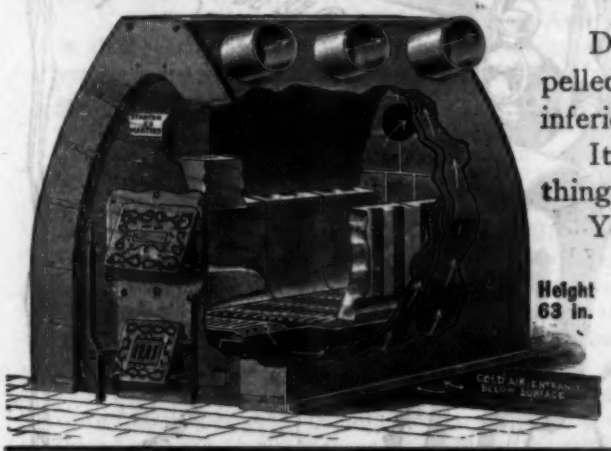
ECONOMICAL IN FUEL

The Best and Cheapest Line of Wood Furnaces. Furnished for either Brick or Galvanized Iron Casing

Bergstrom Bros. Co.

Send for catalogue **NEENAH, WIS.**

The Stanton Seamless Warm Air Furnace



Height 63 in.

Dealers who sell the Stanton Seamless are not compelled to meet figures made by their competitors on inferior heaters, but sell the Stanton on its merits.

It is easy to sell because it is different from anything on the market.

Yearly increasing in favor among progressive dealers who are looking for the best.

Write for catalogue and secure exclusive territory for 1905.

THE STANTON HEATER COMPANY,
MARTINS FERRY, OHIO

Large Radiators, Easy to Clean Out.

Repairs! Repairs! Repairs! Repairs!

Always repairs is the wail of the cast iron furnace user. The popular furnace dealer is the one who installs

American Steel Furnaces

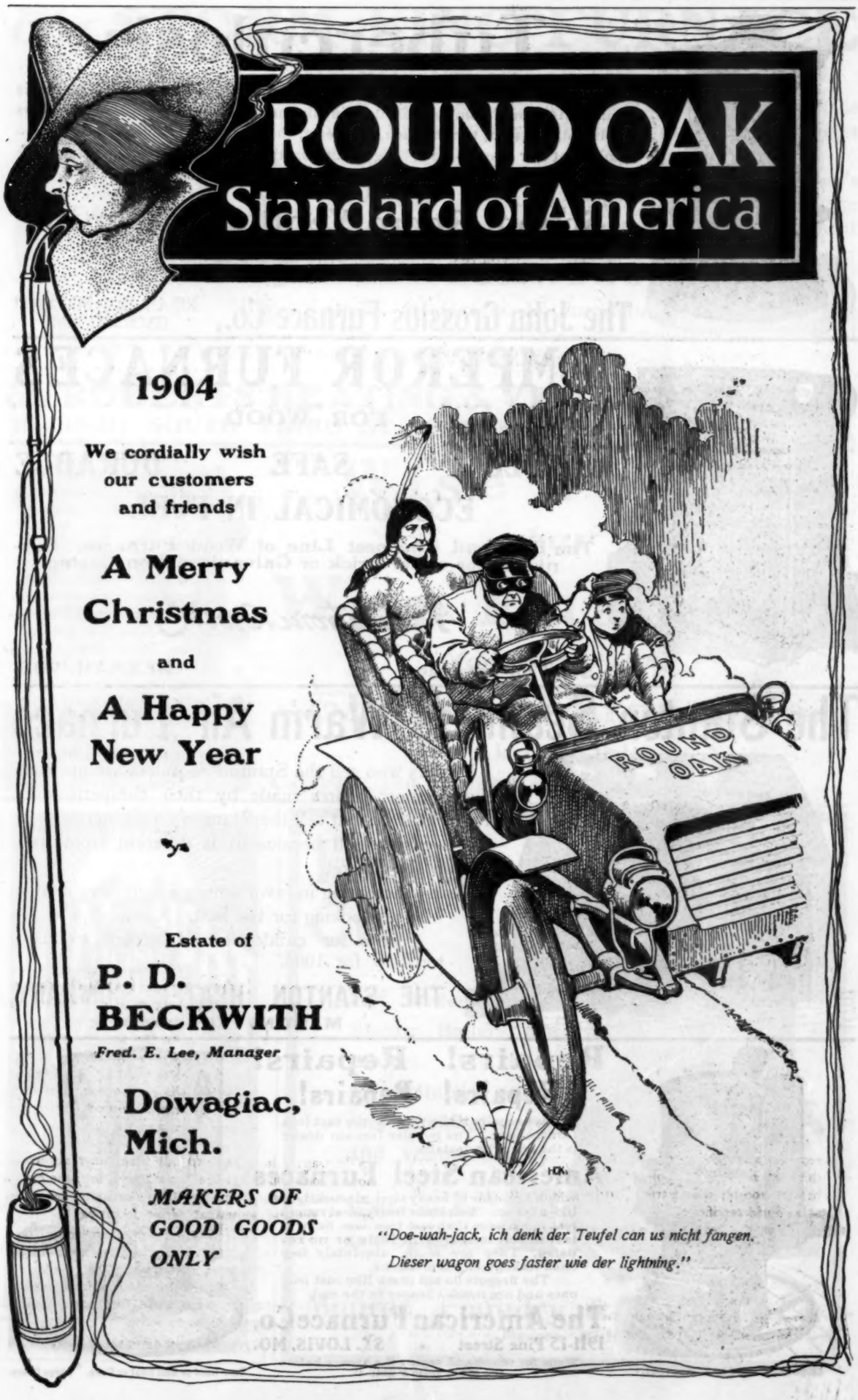
which are made of heavy steel, riveted tight like a boiler. You know heavy steel ranges cost much more than cast iron ones, but will **last much longer with little or no repairs.** They are clean, absolutely free from leakage of gas or smoke.

The firepots do not crack like cast iron ones and are much cheaper in the end.

The American Furnace Co.
1911-13 Pine Street - ST. LOUIS, MO.

Write for prices and secure the agency before the other fellow gets it.

Burn Hard or Soft Coal or Coke. Large Doors.


ROUND OAK
Standard of America
1904
We cordially wish
our customers
and friends
A Merry
Christmas
and
A Happy
New Year
Estate of
P. D.
BECKWITH
Fred. E. Lee, Manager
Dowagiac,
Mich.
MAKERS OF
GOOD GOODS
ONLY
ROUND
OAK
"Doe-wah-jack, ich denk der Teufel can us nicht fangen.
Dieser wagon goes faster wie der lightning."

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, DECEMBER 24, 1904.

MERRY CHRISTMAS.

The Apple of Discord

THE writer grieves to note in the report of the proceedings of the Southwestern Kansas and Oklahoma Hardware and Implement Dealers' Association the springing up of dissensions between organs and organizations of the trade in the east and the west. H. C. Taylor, the newly-elected president of the association, in the course of a lengthy address, said:

"The December 1st issue of the Implement Age published in Philadelphia comes to us with the proceedings of the November 21st meeting of the Lancaster County, Pa., Implement and Vehicle Association. For peculiar and particular gall I commend this Keystone bantam to your consideration. I am informed that there are as many as fifteen or twenty of them and they desire the co-operation of the dealers of this and other associations in their efforts to obtain more satisfactory relations with the harvester trust. However, after they had gotten themselves together at this November meeting they got up a set of resolutions, or passed a bunch that had been prepared for them. In these resolutions although they ask the co-operation of dealers, they seem to have forgotten absolutely that a committee of dealers spent a lot of good money to go to Chicago for the purpose of securing more harmonious relations with the harvester trust, and yet these Lancaster county bantams who will get the same benefit from this expenditure as do the associations who put up the money and whose members spent the time without compensation to secure these results, were entirely ignored by these bantam resoluters.

"Their crow seems so entirely ridiculous when one considers that they have contributed absolutely nothing towards securing the agreement with the harvester trust that I can think of nothing so applicable to compare them with as the bantam rooster whose tremulo tocsin seems to him no doubt as a world terrifier.

"But the resolutions speak for themselves, and if they really got them up indicate that they are long on that kind of talent as they are short on the kind that accomplishes results in association work. 'Resolutions.'

"You notice that they say that this marketing of the International product through the regular retail trade is one of the main objects of their association; and although the Implement Age has never whimpered a whimper along this line they slobber over it with 32 lines of commendatory gush, and not a single line of appreciation to the dealers who have been working for more than two years to accomplish this result, and who went to this meeting with a grip full of correspondence and evidence bearing upon this question which had been laboriously gathered from nearly a thousand dealers in a territory covering several states.

"Then, too, how well they appreciate the change in the clause accepting notes and go on to say that 'it is a most satisfactory adjustment of a matter which has been the subject of much concern and dissatisfaction to the dealers.' If their organ, the Implement Age, has helped them take a single trick in this line they fail to mention it in their 32 lines telling what a God in Israel it has been to them.

"And again, they 'regard the attitude of the Acme and Keystone companies of the utmost significance to the trade,' but where was their mighty champion when these agreements were being secured from these companies? And the gall of their last whereas in which they ask the co-operation of the other associations in securing more satisfactory relations with the International Harvester Company. Co-operate with them! and they have never had a chip in the game at any time, either in money, time or suggestion of value in accomplishing these results.

"Perhaps not one dealer in five hundred in the great western associations knew these Lancaster county resoluters were on earth when the bulk of this harvester work had been performed which resulted in the Chicago meeting at which these concessions from the harvester companies were obtained. I would suggest that they chip in and send one of their number out to the meeting of the Western association at Kansas City next month, where they will see a real association at work strengthening and solidifying the foundation upon which the retail dealer stands, enabling him the better to withstand the irregular competition from without and the almost as injurious competition from within.

"And these Lancaster county fellows think we are to be congratulated indeed because we have this Philadelphia champion to speak up for us when otherwise we might all be hushed up, whatever they mean by that. I wonder if these Lancaster county dealers ever heard of the Implement Trade Journal, or Farm Machinery, Farm Implement News, who have been working with, and for the dealers' associations long before the Implement Age began to visit these western association meetings to see how it was done.

"Now listen to this unblushing organ of those 15 or 20 Lancaster county dealers, who might have gone to their graves unknown to this great implement world of the west had they not begun to resolute a couple of months ago. Here's what this Jim Jeffries Lancaster county champion thinks of himself:

"'It is unnecessary for the Implement Age to claim the credit for the harvester trust concessions as it is to claim the honor of having presented the handsomest and most creditable convention number ever issued to the trade. No one understands this more thoroughly than our contemporaries.' We are entirely willing to let his contemporaries take care of themselves on the convention number proposition, but when he jumps up and with the supremest gall says, 'I am it, I am the mighty one before whom the great harvester octopus quailed and bent the concessionary knee,' then it is time for the dealers' conventions here in the west to say to him that they know hot air when they hear it escaping and they respect him for what he is and not for what he claims to be.

"Perhaps I have been too hard on these eastern goslins whose association wings are just starting, but whose imagination seems to have been born fully developed, but their case seems to demand somewhat heroic lecturing.

"We suggest to them that it has taken money, time and brains to bring the dealers' associations to their present state of efficiency and influence in the trade. That they had better buy some chips in the game with their brother dealers who have been working for them while they have been asleep, dreaming of other resolutions to write."

This scathing denunciation of eastern dealers and an

eastern paper which is working for the same ends as its western confreres is not conducive to the best interests of the trade. No cause prospered when rent by internal jealousies and disorganized by mutual backbiting. Let the enemies of any movement but foment recrimination in the ranks of the opposition and their battle is nearly won.

The catalogue houses must delight to learn that the implement men in the Sunflower state is at loggerheads with his brother dealer in the Keystone state.

Happily harmony has always marked the organization of the hardware fraternity. No unseemly wrangling has disgraced their convention halls. No squabbling over offices has marked the sessions of their national body. Wisconsin has not had a brick ready to heave at Ohio, nor has Iowa made any stilleto thrusts at Indiana.

The American commercial world is coming to concede hardware men as the best organized of the retailers, and while no one can deny rare ability in the men at the head of its state and national bodies, we honestly believe its progress has been due not so much to phenomenal individual ability as to a perfect harmony of all sectional interests and all policies.

A rift in the lute may seem but a bagatelle, but the more Hercules belabored the monster Strife the more colossal became its proportions, and the arraignment of section against section could easily in a few short months rend into shreds the splendid commercial fabric that has been slowly building up for nearly a decade.

This is, we are glad to say, an editorial without an occasion. It is a homily on the evils of war delivered in a dovecote, a plea for vegetarianism preached with no carnivora within hearing, an urging of gazelles to gentleness, or sheep to eschew cannibalism, to speak in metaphor. A unity of interests and a dovetailing of individual influences into one harmonious structure; a unified trade and an unbroken front, these are what Americain hardwaredom present to-day, and may the time never come when the curse of faction, the snapping of an injured vanity or a hasty and splenetic outburst will throw under her ranks any apple of discord.

Advertising.

The writer was talking with a large manufacturer of several lines of kindred specialties, let us say llama leather, llama tallow, llama marrow, llama hoofs and llama wool just for sake of illustration. He said: "Our concern, K. & Co., the Brown-Smiths and the Milwaukee people are all million-dollar concerns and make practicaly the same qualities throughout, but K. & Co. make more money than the rest of us, as we give in to them in the llama marrow business. Now we or the Brown-Smiths or Schneider up in the Cream City make as good a llama marrow as K. & Co. In fact put the four brands side by side and you can't tell them apart unless you were raised on a llama marrow bottle, as it were.

Now some ten years ago K. & Co. started in to advertise the "Kantrot" llama marrow. They went into the trade papers. They went into the magazines. They went into the newspapers.

They have kept it up, and the result is the American people have been taught that "Kantrot" is the only llama marrow.

Our brand, the Milwaukee Grand, and the Brown-Smith brands are just as good, but the trade and the public don't know them.

"Being elbowed out of the llama marrow market by our competitor's enterprise in publicity, we pushed llama wool, llama tallow and other products extra hard with good success.

"About two years ago K. & Co., who were getting fat and saucy, started in to advertise 'Almostbone' llama hoofs, but this time we were not to be caught napping and started out to fight them with our 'Bonelike' brand.

"They advertised.

"We advertised.

"Trade paper men were happy.

"Magazine men smiled.

"Newspaper solicitors were joyous.

"Some people preferred 'Almostbone.'

"Others swore by 'Bonelike.'

"The result was that between us we scooped in the llama hoof business of the Brown-Smiths, who sold Adam probably and that systematic Schneider.

"No one wanted their brands.

"Next year I am going to advertise the whole shooting match."

This practical view acquired at the expense of large sums of money is expressed in other words in the following terse advertisement of the Curtis Publishing Co. given herewith:

There are two kinds of manufacturers that ought to advertise—those who have all the business they can attend to, and those who have not.

It may seem strange to preach advertising to the manufacturer whose plant is running to its full capacity and who finds it difficult to keep up with his orders.

But what guarantee has such a manufacturer that this happy condition will continue?

Advertising is an insurance against future disaster. It creates persistent, ever-increasing demand. The advertising of to-day will not only bring present orders but familiarize everybody with your trademark and the merits of your goods.

Thus at the time when you need it most the impulse gained by past advertising will carry you safely over what might otherwise be a fatal situation.

The second class—the manufacturer whose capacity is larger than the demand—must do one of two things: advertise his brand of goods and place himself in a position where the public will demand them and insist on having them or be content to take a place far back in the rear.

From these things it would seem that it is well to advertise; or else the other fellow may.

From these things it would seem that it is well to advertise; or else some other fellow may rise up.

From these things it would seem that it is well to advertise; or else people may be taught to substitute some product for yours.

From these things it would seem that it is well to advertise; or else you may not sell half as much of your goods as you might otherwise.

From these things it would seem that it is well to advertise; or else by throwing unnecessary educated work on your salesmen your selling expense is higher than it should be.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

FROM the Menominee, Mich., Leader of Dec. 12 I learn of a new chemical of rare properties which is graphically described as follows:

DESPERATION SEIZED THE GUY

Poured Gasoline Onto a Flame While His Auditors Had Visions of a Quick Journey to the Beautiful Shore. But He Didn't Make a Sale.

The hardware men of this city have been investigating the workings of a new chemical which was displayed in the stores Saturday by the representative of a southern Michigan firm.

The chemical is in the form of a powder and when placed in gasoline or kerosene, it not only makes the liquids non-explosive, but will prevent them from giving out any odor or smoking up lamp chimneys in any way, it is claimed. The oils when used with the powder mixed in oil give out a much brighter light than without the chemical.

To prove that what he said was the truth, the traveling man had some gasoline brought to him and after placing a small quantity of powder in it, he placed some of it in a lamp and lighted it. To the surprise of all the gasoline burned in the lamp just as kerosene would, without smoking or throwing off any odor.

He also placed some of the gasoline thus treated in a kerosene oil stove and had it burning for fully three hours without giving off the faintest odor or flaring up at all.

He then took the remainder of the chemically treated gasoline which was left in the bottle and removing the chimney of the lamp he poured it over the flame. Although the gasoline burned as fast as poured upon the blaze it did not explode the lamp or bottle.

The hardware men did not buy any of the chemical, and the traveler left for the north. Perhaps he will try one experiment too many some day and make a quick trip to the Sweet Bye and Bye.

* * *

I was talking the other day with a manufacturer who is very friendly with the various hardware associations and he entered a decided protest against the drain on the manufacturers' resources that advertising in various souvenirs and other advertising programs issued by the various organizations, annually causes. "When the first souvenirs, programs of annual meetings, or whatever you may call them, appeared, our firm advertised without solicitation even, not that we regarded them as of any particular value as advertising mediums, but out of friendliness towards the struggling associations and because this seemed a nicer way to contribute to help them along than by making a cash contribution. By and by along came the national association with its annual and the same plea.

"These associations, we are glad to say, have multiplied and have done well, but with a long string of them asking for ads and the National getting out a bulletin and calling for an ad every three months, the manufacturer who is not in a position to discriminate is up against a stiff financial contribution.

"As a remedy and a sensible one, I would suggest that every state association take up the Iowa idea, which, however it may be regarded in politics, has taken splendidly as regards hardware programs. This association solicit advertising only from Iowa manufacturers and jobbers and consequently can appeal to state pride as well as other motives for advertising, for all of us like to see a state institution prosper. Moreover, if manufacturers were expected to help out only their home association, it would not be a serious tax at all. May the Iowa idea spread."

* * *

I AM pleased to add a real pearl to my peerless collection of stove poetry. So matchless is this gem that I will give a series of prizes, 1st, one elderly horse; 2nd, 3 pounds chewing gum; 3rd, subscription for 2 months to the American Nut Journal, to anything at all approaching it in true literary merit. Here is this scintillating gem:

Hot and hottest! we should say,
Here's the new heat of to-day.
Here's the Heater—and no less,
That is just its business,
Red hot is its record past,
Nothing's like the Globe Hot Blast.

It's the winner everywhere,
Regulated by the air,
All is in the draft, you know,
Make it fierce or soft and low,
Shut it off, your fire will last
Days inside the Globe Hot Blast.

'Tis the lovcliest of the line,
It is fine and superfine,
'Tis a jewel on your hearth
And the Best stove on the earth;
All the others are outclassed
By the famous Globe Hot Blast.

It is rich and it is rare,
'Tis the Heater everywhere,
Saves in fuel what it cost
In the first six months of frost;
No stove yields a heat so vast
As the charming Globe Hot Blast.

It is gorgeous, neat and clean,
And will please wherever seen,
It will do just what you please
For its's managed with all ease;
Made to warm you and to last
Is the modern Globe Hot Blast.

News Siftings

Hugo Munzer, Benj. Greenberg and Mark Rosenstein are the incorporators of the Imperial Metal Co., Paterson, N. J., capitalized at $5,000.

Paul W. Miller, H. A. Tucker and M. A. McKee are the incorporators of the Simpson Stove & Mfg. Co., Camden, N. J., capitalized at $125,000 for manufacturing stoves.

Murray A. Pierson, Alex. H. Hayman and A. Degeler are the incorporators of the United States Peat Fuel Co., Camden, N. J., capitalized at $1,000,000 for dealing in peat fuel.

Geo. A. Kues, A. C. Rowe and Joseph F. McCoy are the incorporators of the Clark Save Fuel Co., White Plains, N. Y., capitalized at $100,000 for the manufacture of fuel saving devices.

The American Stove & Range Co., Keokuk, Ia., send us a circular calling attention to their line of American steel ranges, American steel cooks, American cast cooks, American hot blasts and American oaks.

The Florence Stove & Mfg. Co., Florence, Ala., have commenced the erection of new buildings consisting of a main building two stories in height and 71x317 feet in dimensions with a wing 60x93 feet in dimensions.

The Favorite Stove & Range Co., Piqua, O., are making excavations for a new addition to their plant, which they will use for shipping and storage purposes. This new building will be two stories in height and 220 x76 feet in dimensions.

J. E. T. Dickinson, Samuel Avey, J. Wallace and Wm. Ellerbeck are the board of directors of the Triple Heating Stove & Gas Trap Co., Beatrice, Neb., capitalized at $100,000, for the manufacture of stoves made under the patents of J. E. T. Dickinson.

John McLean, a stockholder in the Avondale Stove & Foundry Co., Avondale, Ala., has filed a bill in equity against the company and Joseph Brower, James Brower and E. E. Roden praying for the appointment of a receiver for the real and personal property of the concern.

Robert S. Butler, the expert chemist employed by the Sterling Stove Polish Co., Sterling, Ill., has just perfected a stove enamel which this firm will place on the market shortly after the first of the year. Mr. Butler, who is one of the leading chemists, graduated from the University of Chicago, is constantly engaged in perfecting new polishes or endeavoring to improve old ones if possible.

The Ringen Stove Co. Div. of the American Stove Co., St. Louis, Mo., announce that the Quick Meal gasoline and oil stoves will start the 1905 season with greater laurels than ever before, having received the grand prize and gold medal at the Louisiana Purchase Exposition. These stoves please the eye and satisfy the user, and dealers are urged to secure the agency for 1905 without waiting to see what line his competitor selects.

S. B. Patch & Sons, Streator, Ill., send us their catalogue calling attention to their line of foundry and machine work. Their goods include boiler work, coal holes, rocker and shaker grates, emery grinders, copying presses, post mauls, lawn vases, swage blocks, feed boxes, cast iron lintels, finials, etc. One of these catalogues will be forwarded the trade on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

L. K. Wynn, who is very well known to the Iowa hardware trade, having been representative in that state for the Gem City Stove Mfg. Co. of Quincy, Ill., has abandoned the joyous life of a traveler and will hereafter conduct the successful stove polish business of the late L. D. Wynn of the Black Silk Stove Polish Works, Sterling, Ill. Mr. Wynn's wide popularity with the stove trade assures his new business adventure being a success from the start.

The stockholders of the Golden Rule Stove Co., Knoxville, Tenn., held their annual meeting recently and elected the following directors to serve for the ensuing year: David Jones, John M. Clark, J. G. Lowe, W. A. Dunlap, R. G. McNutt, Mrs. Charlie Litterer, F. F. Babcock, G. H. Holliday and A. A. Coventry. The following officers were also elected: John M. Clark, president; R. G. McNutt, vice-president; G. H. Holliday, general manager, and A. A. Coventry, secretary and treasurer.

The Gem City Stove Co., Dayton, O., will be represented on the road during 1905 by the following efficient corps of salesmen: A. H. MacAdams will look after their interests in Pennsylvania and New Jersey; John P. Bauer will have Ohio and Michigan as his territory; W. A. Rowland will look after the interests of Clermont stoves and ranges in Ohio and Indiana; Chas. H. Greene, Jr., will travel through Missouri, Illinois, Iowa and Kansas; J. C. Bump will call on Wisconsin dealers, and Geo. W. Cahoon will have Minnesota and the Dakotas as his stamping ground.

We are in receipt of a littel booklet describing the greater Home Pride malleable steel ranges, manufactured by the Home Pride Range Co., Marion, Ind. These ranges are built of 16-gauge blue body steel with solid blue high closet in 18, 20 and 23 inch ovens; they are also made in 16-gauge black enameled steel with doors of the body of the range and high closet of blue steel. The trimmings, including the bands, doors, lugs, etc., are all smoothly polished with a heavy coat of nickel on a copper foundation. Besides a full description of the many excellent points of this range, this booklet contains a very large number of recipes for meats, salads, cake, puddings, etc. The trade handling this range will find it a very desirable booklet for distribution among their customers. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

W. M. Olive has sold his hardware business in Cashmire, Wash., to Wells & Morris.

Chris. Menicke has engaged in the hardware and implement business in Ozona, Tex.

John Peters has purchased the hardware business of J. J. Steil, in Emmetsburg, Ia.

N. Dennison has purchased the hardware store of Porter & McCann at La Belle, Mo.

GLOBE STOVES AND RANGES.

A very attractive catalogue whose illustrative and typographical work is of the highest order comes to us from the Globe Stove & Range Co., Kokomo, Ind. This volume presents a rich simplicity and is a marvelously creditable piece of work, being ornate and at the same time free from any striving after ornateness. The superior screen used for the half tones and the highly enameled paper brings out the fine points of the various ranges with an exquisitely pleasing effect. The Globe line of steel ranges is magnificently complete. It is made in eight grades. Each grade is made in eight styles and each style in three sizes, making 192 separate and distinct ranges which the dealer carrying this line has to select from, without counting the additional styles caused by offering these goods with and without reservoir and with and without high shelf, and with and without high closet.

The Grand Globe range with air-tight hot blast is made of planished steel. The oven door is balanced by the patent adjustable spring handle, which is at all times cold. Cold air is taken in and superheated through a special flue under the oven flue proper. It is jetted into the fire box through the slots in the lining. Either a hard or soft coal fire will keep over night in this range without covering. The cast-iron ash chute is easily taken out. The ash pan fits closely to the bottom rim. The ash pit door is mounted air tight. The bottom has a broad lip on the inner side and prevents the ashes from falling out when the door is open. The cast back flue is all in one piece and as it is air tight it gives a perfect draft around the oven. The pouch feed with register draft measures 4 inches in the clear. The fire box can be completely removed in half a minute; it has a heavy sectional lining and superheated air is jetted through the slots and mixed with the unburnt gas. The accumulation of ashes is prevented by an air chamber back of the lining. The grates are of the draw-out duplex pattern and the duplex grate rest is made of gray iron and rests on heavy cast iron brackets. The end draft or toaster is made in the form of a drop door and is placed on a level with the fingered grate.

All riveting is done with cone head rivets. The fire box extension is made in one piece and can be lifted out. The 8 and 9 inch key plates are interchangeable with each other and the four-piece frame supporting these key plates is away from the fire, allowing for expansion and contraction. The covers are double rimmed. The ornamental base is made in four sections and is easily detached. All Grand Globe ranges are provided with oven thermometers and are trimmed by a special process of nickel finish.

Other of the steel ranges shown in this volume are the Mascot Globe range, Grand Active range, Premier Globe range, Solar Globe range, Regal Globe range, Mars Globe range, and the Capital Globe range, the latter a new medium priced range.

The Globe steel cooks are made of planished steel. The body is a double wall—the exterior of planished steel, closely hand riveted with cold head rivets every two inches and interlined with asbestos millboard. The ovens are made in two sizes with full measurements, 18 and 20 inches wide, 13 inches high and 20 inches deep, respectively. The oven top is asbestos lined overlaid with open cast shields. The oven bottom is securely braced and the oven door is spring balanced, forming a convenient shelf when lowered. The back flue is cast iron and the end draft or toaster is placed on a level with the fingered grate. The covers are doubly rimmed and the fire box extension is made of one piece. The pouch feed door has check slide, covers and extra large opening. The fire box is large and well proportioned, and the heavy sectional linings are corrugated so as to hold fine ashes. Either hard or soft coal or wood can be burned in the duplex grates. The reservoirs are white enameled, encased in cast iron. The reservoir damper is unusually large and strong; it is made with broad flanges which are closely fitted. The top plates are interchangeable, as are the 8 and 9 inch key plates. A special nickel process finish is placed on the ash guards, oven door frame, handle and panel, reservoir ornament, tea shelf top band, etc.

The Globe oak heaters are very popular with the trade. The steel body has a half-inch flange that fits in a depression in the top rim of the fire pot; the deflecting ring projects 1½ inches up on the steel body and is also flanged—fitting tightly over the steel flange and making an absolutely air-tight joint, it is claimed. The nickel on the full nickel finished heaters consists of registers, handles, name plate, band, foot rails, swing top, wings, sub-base, legs, and hinge pins.

The Globe hot blast burns slack and all grades of soft coal without smoke or soot. It burns hard coal as satisfactorily as a base burner.

The Globe air-tight heaters for wood only have steel body and base made of cast iron with high cast-side.

One of these catalogues will be forwarded to the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

WORLD'S PRODUCTION OF IRON IN 1903.

Messrs. James Watson & Co., Glasgow, have just published statistics on the production of raw iron during 1903, from which the following figures have been extracted:

The production, which in 1901 was 39,940,000 tons, increased to 43,480,000 tons in 1902 and reached 45,480,000 tons in 1903. The United States stands at the head with a production of 18,010,000 tons against 17,820,000 in 1902 and 15,800,000 in 1901. Germany wrested the second place from Great Britain in 1903, its production being 20,090,000 tons against 8,400,000 in 1902 and 7,790,000 in 1901. Great Britain occupies the third place with an output of 8,810,000 tons against 8,520,000 in 1902 and 7,850,000 in 1901. The output in France, which in 1903 amounted to 2,830,000 tons, has increased bv 400,421 tons as compared with 1902 and by 427,428 tons as compared with the production of 1901. Belgium produced 1,300,000 tons in 1903, an increase of 196,301 tons over 1902 and 533,701 tons over 1901. Spain's production amounted to 380,284 tons.

The Hardware Record.

American Hardware Mntc. Assn.
Pres., J. C. Birge, St. Louis, Mo.
Vice-Pres., C. W. Asbury, Philadelphia, Pa.; Geo. W. Corbin, New Britain, Conn.; Henry B. Lupton, Pittsburgh, Pa.
Sec.-Treas., F. D. Mitchell, Philadelphia.
Ex. Com., W. M. Taussig, Bridgeport, Conn.; Sam'l Disston, Philadelphia; Wm. H. Hays, Pittsburgh; John E. Harbster, Reading; Geo. P. Hart, New Britain; W. M. Pratt, Greenfield, Mass.; E. G. Buckwell, Cleveland; E. B. Pike, Pike, N. H.

Arkansas Retail Hdw. Dealers' Assn
Pres., Hamp Williams, Hot Springs.
1st. V. P., T. B. Stewart, Newport.
2d V. P., R. P. Graham, Fordyce.
Sec.-Treas., C. E. Taylor, Little Rock.
Ex. Com., J. E. Maxey, Ozark; J. A. Plummer, Marianna; R. P. Alfeh, Van Buren; J. L. Davis, Magnolia; one year each; Frank B. Gregg, Little Rock; C. T. Rosenthal, Batesville; J. M. Pittman, Prescott, two years each.

Chicago Retail Hdw. Dealers' Assn.
Pres., H. E. Gnadt.
V.-P., G. A. Neeb.
Sec., G. R. Lott.
Collector, John Hora.
Treas. J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres., Thomas Devlin.
V.-P., John R. Griffith.
S.-Treas., T. James Fernley.
Directors, W. W. Supplee, John R. Griffith, E. S. Jackson, W. C. Peters, S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st. V.-P., A. Shidler, So. Bend.
2d V.-P., T. J. Lindley, Jeffersonv'l
Sec.-Treas., M. L. Corey, Argos.
Members Ex. Com., W. P. Lewis, New Albany; Chas. E. Hall, Indianapolis; J. L. Fulton, Portland.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V.-P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Englehardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago, L. Nish, Elgin; Geo. A. Engelhardt, Chicago; Frank McKenney, Rockford; Chas. Johnson, Peoria; L. D. Ray, Belvidere; F. F. Porter, Chicago; Wm. Bittel, Peoria; H. G. Cormick, Centralia.

Indian Territory Retail Hdw. Assn.
Pres., A. L. Severance, Durant.
1st V.-P., Geo. W. Mowbray, Tulsa
2nd V.-P., W. J. Pettee, Oklahoma City.
Secy., W. G. Johnston, Oklahoma City.

Iowa Retail Hdw. Dealers' Assn.
Pres., S. R. Miles, Mason City.
V.-P., H. S. Vincent, Ft. Dodge.
Treas., A. C. Vieth, Oakland.
Members Ex. Com., T. A. Nichols, Burlington; D. A. Stauffer, Iowa City; W. B. Baumgardner, Dubuque; U. S. Johnson, Tama; F. W. Ritter, Hedrick; Thomas Gadd, Des Moines; F. F. Botlinger, Afton; Chas. Swaine, Council Bluffs; Wm. H. Millard, Cherokee.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., J. C. Frederick, Owensboro.
1st V.-P., J. C. Mahon, Lawrenceburg.
Sec., John R. Sower, Frankfort.
Treas., J. Steitler, Owensboro.

Michigan Hardware Association.
Pres., J. B. Sperry, Port Huron.
V.-P., Geo. B. M. Towner, Muskegon.
Treas., Henry C. Weber, Detroit.
Sec., Austin J. Scott, Marine City.
Ex-Com., S. Winchester, Jackson; J. G. Patterson, Detroit; E B. Standart, Holland; E. S. Roe, Buchanan; John Popp, Saginaw; W. P. Culver, Portland; K. S. Judson, Grand Rapids; J. H. Whitney, Merrill; E. J. Morgan, Cadillac; T. Frank Ireland, Belding.

Minnesota Retail Hardware Assn.
Pres., A. T. Stebbins, Rochester.
V.-P., George Evenson, St. Peter.
Sec., M. S. Matthews, Minneapolis.
Treas., G. F. Duerre, Plain View.
Ex-Com., W. H. Tomlinson, Le Sueur; J. H. Smith, Minneapolis; H. R. Schroeder, St. Paul; J. A. Roehl, Owatonna; W. T. Cowing, Alexandria; C. H. Casey, Jordan; Louis Gewalt, Breckenridge; Chas. F. Ladner, St. Cloud; J. F. McGuire, St. Paul; A. T. Stebbins, Rochester; Geo. M. Evenson St. Peter.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., S. A. Bigelow, Boston.
Vice-Pres., John C. Koch, Milwaukee.
2nd Vice-Pres., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley, Philadelphia.
Ex. Com., R. M. Dudley, Nashville; W. S. Wright, Omaha; W. D. Taylor, Cleveland; F. Barker, Elmira, N. Y.; J. D. Moore, Birmingham, Ala; P. E. Strauss, Boston.

Nebraska Retail Hdw. Dealers' Asn.
Pres. J. C. Cornell, Ord.
Vice-Pres., F. D. Kees, Beatrice.
2d V.-P., Max Uhlig, Holdrege.
Sec.-Treas., H. J. Hall, Lincoln.
Ex. Com., W. J. Jakway, Lincoln; Theo. Sinbold, Omaha; Alex F. Meyer, Hastings.

National Retail Hdw. Dealers' Asn.
Pres. W. P. Bogardus, Mt. Vernon, O.
V.-P., W. H. Tomlinson, LeSueur, Minn.
2d V.-P., F. C. Moys, Boulder, Col.
Sec., M. L. Corey, Argos, Ind.
Treas., A. T. Stebbins, Rochester, Minn.
Ex. Com., T. Frank Ireland, Belding, Mich.; James N. Kline, Williamsport, Pa.; Frank F. Porter, Chicago; S. E. Jones, Richmond, Ind.; A. H. Abbe, New Britain, Conn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. F. Emery, Fargo.
1st V.-P., G. W. Wolbert, Bismarck.
2d V.-P., A. C. McNiven, Langdon.
Sec., C. N. Barnes, Grand Forks.
Treas., H. T. Heigesen, Milton.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association,
Pres., John F. Baker, Dayton.
V.-P., C. S. Johnson, Barberton.
Cor. Sec., Frank A. Bare, Mansfield.
Fin. Sec., W. C. Jones, Columbus.
Treas., L. F. Stahler, Waverly.
Ex. Com., John C. Fuhr, Williamsburg; John Kramer, Dayton, C. W. Jewell, Utica; W. A. Perry, Zanesville; Frank W. Ingalls, Byran.

Pennsylvania Retail Hdw. Assn.
Pres., Joseph M. Selheimer, Lewiston.
V-P., Geo. V. Thompson, Mt. Jewett.
Sec.-Treas., J. E. Digby, McKees Rocks.
Ex. Com., Joseph M. Selheimer, Lewiston; Geo. W. Hackett, Sunbury; J. E. Digby, McKees Rocks; James N. Kline, Williamsport; George L. Moore, Brownsville.

St. Louis Stove Dealers' Assn.
Pres., R. H. Myers.
1st V.-P., E. L. Wachter.
2d V.-P., G. M. Rinie.
Sec., Louis Boehl.
Treas., F. A. Kannsteiner.

Southern Hardware Jobbers' Assn.
Pres., W. M. Crumley, Atlanta, Ga.
1st V.-P., John Donnan, Richmond, Va.
2d V.-P., E. A. Peden, Houston, Texas.
Ex. Com., Bruce Keener, Knoxville, Tenn.; Chas. Ireland, Greensboro, N. C.; O. B. Barker, Lynchburg, Va.

Texas Retail Hdw. and Imp. Assn.
Pres., S. L. Erwin, Honey Grove.
1st V.-P., W. M. Gunnell, Marlin.
2d V.-P., J. D. Carroll, Quanah.
Sec. & Treas., J. W. McManus, Waxahachie.

Wisconsin Hdw. Dealers' Assn.
Pres., H. L. McNamara, Janesville.
V.-P., Ralph Burtis, Oshkosh.
Sec.-Treas., C. A., Peck, Berlin.
Ex. Com., W. H. Busse, Milwaukee; E. R. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 44 to 48 inclusive.

T. T. Gillespie is a new Homestead, Pa., hardware dealer.

The Grieve Hardware Co. are a new Castile, N. Y., concern.

J. C. McConnell is a new Oaklandon, Ind., hardware dealer.

C. A. Buser will engage in the hardware business in Seneca, Kans.

The Paxton Hardware Co., of Snyder, Tex., has been incorporated.

C. W. Hucker will engage in the tinning business in Cunningham, Kans.

Cupples Bros., hardware dealers of Downs, Wash., will add a department store.

Orr & Hancock succeed C. W. Sackett in the hardware business at Craig, Neb.

The Aberdeen Hardware Co. will engage in business in Aberdeen, S. D., on Jan. 1.

D. E. Whitmore has sold his hardware store at Ludlow, Ill., to L. L. Ledderboge.

Henry Bushing succeeds L. A. Wetzler in the hardware business at Sunman, Ind.

Ziba Newton will engage in the hardware and lumber business in Hollinger, Neb.

The death is reported of J. F. Croley, a hardware and furniture dealer of Gilmer, Tex.

P. W. Zeigler has sold his hardware business in Manhattan, Kans., to K. L. and B. R. Hull.

M. B. Castillo has purchased the hardware and implement business of H. S. Joy, in Elmo, Mo.

Hawley Bros. have sold their hardware and implement business in Potter, Kans., to Mr. Parker.

L. F. Powell has purchased the hardware and furniture business of Wade & Push, in Pierson, Ia.

The McIntosh Hardware Co., of Kalispell, Mont., has established a branch at White Fish, Mont.

Worel & Zeman have purchased the business of the Rand & Roemer Hardware Co., Manitowoc, Wis.

C. W. McCurdy is succeeded in the hardware business at Maysville, Ga., by McCurdy & Simmons.

Russell & Willis will open a hardware and implement business in New Boston, Tex., about Jan. 1.

Cook Bros., dealers in hardware, stoves and agricultural implements at Culver, Ind., have assigned.

The Interlocking Fence Co., Morton, Ill., have increased their capital stock from $25,000 to $75,000.

W. M. Curtiss has been succeeded in the hardware business in Ballard, Wash., by W. M. Curtiss & Co.

Russell & Willis will engage in the hardware and implement business in New Boston, Tex., about Jan. 1.

The establishment of the Hawks Hardware Co., Goshen, Ind., was destroyed by fire on Dec. 15th last.

The hardware store of W. W. Barr & Sons, Kansas, Ill., which was visited by robbers on Dec. 4th, was robbed again on Dec. 15th; shotguns, rifles, shells,

cartridges and knives to the value of $110 being taken.

J. W. Hulen has been succeeded in the hardware and implement business in Centralia, Mo., by Hulen & Pickett.

The Terre Haute Rolling Window Screen Co. are a new Terre Haute, Ind., concern, capitalized at $25,000.

The Chicago Hardware Foundry, North Chicago, Ill., have increased their capital stock from $65,000 to $250,000.

J. H. Behrens has been succeeded in the hardware and implement business in Pender, Neb., by Behrens & Heyne.

The Michigan Wire Cloth Co., Detroit, Mich., are putting up a three-story addition 50x300 feet in dimensions.

C. A. Hedlund has succeeded to the hardware business formerly conducted by Dean & Hedlund, in Holdrege, Neb.

W. J. Talbott & Son have been succeeded in business in Eldorado, Okla., by the W. R. Talbott Hardware Supply House.

Burnett & Moore have succeeded to the hardware and furniture business of Burnett, Whinery & Co., in Henryetta, I. T.

W. S. B. McConnell, a traveling salesman for the Witte Hardware Co., St. Louis, Mo., died at Sparta, Ill., on Dec. 16th last.

The South Dakota Retail Merchants' & Hardware Dealers' Association will meet at Sioux Falls on Jan. 24th, 25th and 26th next.

Chas. H. Drury has purchased the shares of Mrs. Eva Kelley in the Drury & Kelley Hardware Co., Cadillac, Mich., for $7,000.

The hardware store of Hanson, Newgard & Hanson, Milnor, N. D., was destroyed by fire on Dec. 13th last. The loss will reach $50,000.

The Retail Hardware & Implement Dealers' Association of Texas will hold their annual meeting in Dallas about the last of January.

L. P. Durant, Kendrick Wilder and T. M. Parrott are the incorporators of the Durant Hardware Co., Sumter, S. C., capitalized at $12,000.

The Abbeville Hardware Co., Abbeville, S. C., was visited by burglars on Dec. 11th last, who stole $150 worth of shotguns, cutlery and silverware.

Janney, Steinmetz & Co., Philadelphia, dealers in aluminum and steel makers' supplies, are now located at Fourth and Market streets, Philadelphia.

Jas. T. Fagg, a Forestville, Conn., hardware dealer, has filed a voluntary petition in bankruptcy, scheduling liabilities of $5,410.58 and assets of $3,107.08.

J. P. Jacobson, a Coulter, Ia., hardware dealer, was visited by burglars recently. They secured $200 worth of razors, silver plated table cutlery and guns.

Herbert J. Maloney and Josiah G. Seidell are the incorporators of the Keystone Nail Co., Philadelphia, Pa., who will galvanize nails, tools, rivets, washers, etc.

The Schmidt Hardware Co. and A. C. Wallis, Sheffield, Ia., hardware dealers, will close their stores at 6 p. m. daily, Saturdays excepted, commencing Dec. 26th next.

M. Klettner, S. Klettner and D. Gotthelf are the incorporators of the Eureka Lock & Metal Co., New York, capitalized at $20,000 for the manufacture of metal goods.

Thos. J. Henderson is president, John T. Gibbons is vice-president and Jas. J. McLaughlin is secretary of the United Hardware Co., New Orleans, La., capitalized at $200,000.

John Brown, Sr., member of John Brown & Sons, Baltimore, Md., hardware dealers, died at his residence, 1906 Mount Royal Terrace, that city, on Dec. 15th, from pneumonia.

The plant of the Trenton Hardware Co., Trenton, N. J., which was recently destroyed by fire, will be rebuilt, ground for a new structure having been broken a few days ago.

Geo. A. Bowden, Nare W. Comstock and J. M. Ehrlich are the incorporators of the Buffalo Gas Fixture Co., Buffalo, N. Y., capitalized at $10,000 for manufacturing gas fixtures.

The trade will sympathize with Arthur J. Scott, secretary of the Michigan Retail Hardware Dealers' Association, in the recent death of his mother, Mrs. W. H. Scott, which took place at Marine City recently.

The Executive Committee of the Maritime Province Wholesale Hardware Dealers' Association met in St. John, N. B., on Dec. 16th last, for the purpose of making territorial arrangements with the U. S. Products Exporting Co.

Julien A. Hurdle, A. Eugene Bolles and A. Nell Malcomson, Jr., are the incorporators of the Federation Hardware & Mfg. Co., Montclair, N. J., capitalized at $125,000 for manufacturing and dealing in hardware of all kinds.

The directors of the Old Dominion Iron & Nail Works, Richmond, Va., held a meeting in that city on Dec. 16th last and elected Frank J. Gould of New York as president, and Thos. S. Wheelwright as vice president and general manager.

I. W. Lillis, secretary of the Sharpe Mfg. Co., Chicago, recently organized for the manufacture of hardware specialties, caused the arrest, it is said, of James T. Sharpe, president of the company, on Dec. 19th last, on a charge of larceny. Lillis charges Sharpe with the theft of an express package containing a patent castor.

The Executive Committee of the Ohio Hardware Association held a session at the Algonquin Hotel, Dayton, on Dec. 13th last, to make arrangements for their annual state convention. According to President John F. Baker, the two principal subjects for consideration will be the Parcels Post and the Catalogue House Question.

Sickels, Preston & Nutting, Davenport, Ia., send us a little colortype booklet entitled "Modern Paintings." This shows colortype reproductions of "Constance," by Albert Lynch; "Solitude," by Moran; "The Noonday Rest," by Osthaus; "Late Autumn in Con-

necticut," by Geo. Howell Gay; "On Furlough," by Pierce, and "Sunset in Venice," by Moran.

Geo. W. Hoffman, 295 E. Washington St., Indianapolis, Ind., duplicated his feat of receiving the highest award at the Chicago World's Fair in 1893 by securing the highest award at the Louisiana Purchase Exposition for the United States metal polish and Bar Keeper's Friend. This polish is used for polishing gold, silver, plated ware, nickel, tin, brass, copper, etc.

The probation of the will of Edward K. Tryon, Jr., of the well known hardware specialty and sporting goods house of Edward K. Tryon Co., Philadelphia, disclosed the fact that the old employes of that firm had been well remembered. All who had been with the company for 15 years received $150 each and all who had been with the house 10 years received $100 each.

The Warren Axe & Tool Co., Warren, Pa., send us a catalogue showing their line of axes and tools. They are sole owners of the Sager patent chemical process for treating metals. All their product is hand-forged, enabling them to work the steel more thoroughly, thereby making it unusually tough. The capacity of their factory is 1,500 axes daily. Their factory brands are, "Sager special patent chemical process," "Warren," "Monarch," "Bodarc," "Black King," "Forest King" and "Matchless."

Their axes, single bit patterns, are: Dayton; Dayton, plain bevel; Narrow Michigan, Yankee, plain; Yankee, hollow bevel; Michigan, hollow bevel, handled; Falling; Wisconsin; Half Wedge; Dun Wedge; Maine; Connecticut; Tasmania; New England; Western Crown; Ohio; Delaware; Rockaway; Jersey; Baltimore Kentucky; Southern Kentucky; Southern Kentucky, lip light head; North Carolina; Turpentine; Firemans, and Ice.

Their axes, double bit patterns, are: Yankee; Western Crown; Wisconsin; Michigan; Falling; Swamping; California Reversible; Half Peeler; Full Pealer; Wedge.

Their tools include: I. X. L. log grab; bull dog improved log grab; grab maul; combination cant hook and puller; peavy, complete; cant hook; cant or lumber hook; solid malleable peavy socket; saw wedge; crotch or carting grab; crotch or carting grab, with swivel; four paw grab; carting grab, with swivel; lumber carrier; grab skipper; O. K. saw handle; trailer; single bit axe handle; double bit axe handle; American wrench; bark spud; forged swivel; brick hammer, and brick chisel.

HARDWARE PRODUCTS.

The Oneida Community, Ltd., Oneida, N. Y., send us their latest price list of game traps and chains. Their new house traps are made in the following sizes: No. 0 for rat; No. 1, muskrat; No. 81, skunk or mink; No. 1½, mink; No. 2, fox; No. 2½, single spring otter, with teeth; No. 3, otter; No. 3½, extra large single spring otter, with teeth; No. 23, otter, with clutch; No. 4½, wolf; No. 50, small bear; No. 150, small bear, with offset jaws; No. 5, bear; No. 15, bear, with offset jaws, and No. 6, grizzly bear. Some of their trap specialties include their bear chain clevis, with which a loop can be made around any small log or tree without the trouble of cutting to fit the ring. Their wolf trap wrench enables a trapper to set a wolves' trap in a very short time. Their Hawley & Norton traps are somewhat lighter than the Newhouse trap, and their Victor traps are largely sold to farmers and others who desire a cheap trap. Their Jump traps are light in weight and easy to carry. In chains, this firm offer halter chains, dog chains, coil chains, cow chains, picket chains, wagon chains, sash chains, trace chains, key chains, dog collars, snaps, etc. One of these catalogues will be forwarded the trade on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

STEPHENS' PATENT COMBINATION RULE.

The accompanying cuts show Stephens' patent combination rule, manufactured by the Chapin-Stephens Co., Pine Meadow, Conn. It is the invention of L. C. Stephens and combines in itself a carpenter's rule, spirit level, square, plumb, bevel, inclinometer or slope level, brace scale, draughting scale, T square, protractor, right-angled triangle, and with a straight edge can be used as a parallel ruler, all the parts of which in their separate application are perfectly reliable.

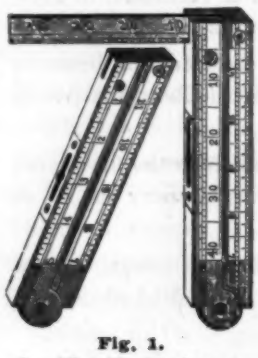


Fig. 1.

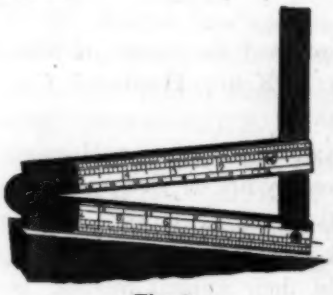


Fig. 2.

It is made of boxwood, with one joint, and is well protected with heavy brass binding. The plate which protects the glass being put on with screws, can be removed should it by accident become necessary to insert a new glass.

When folded it is six inches long, one and three-eighths inches wide, and three-eighths of an inch thick, and weighs the same as an ordinary broad-bound rule. The cuts represent the rule in three positions; first, as a spirit level; second, as a try-square, level and plumb; third, as a clinometer, or slope level, in which it is represented in taking the angle or inclination of an inclined plane—the top of a desk, for instance.

The steel blade folds like a knife blade into the part which holds it. One side of the blade is graduated, and the figures 5, 10, 15, 20 to 45, denote the degree of the angles, which are formed by opening the legs of the rule, the blade sliding through the groove in the end of the leg.

The inner edge of the leg which holds the glass is also graduated to measure the angles which are formed by turning the blade in the leg which holds it, which arrangement is especially adapted to iron planers. These degrees show how much the right angle is reduced as the blade falls from that position.

The slotted screw, which passes through the end of the leg which holds the level, is used in adjusting the square, should it wear so as to require it. With a small screw driver the blade may be raised or depressed by turning the screw either way. The square is strong, firm and reliable, there being a heavy metal stop to prevent its going back too far, while it is held firmly in place while in use by a broad metal strap, through which the screw passes.

THE HANSON VISE.

The Stowell Mfg. & Foundry Co., South Milwaukee, Wis., make a most invaluable combination tool in their Hanson vise, to which the two accompanying illustrations fall far short of doing justice. Figure 1 shows the tool as a saw clamp, and Figure 2 as an anvil.

Hanson Vise as Saw Clamp.

It can also be used as an anvil vise, a drill and a pipe vise. It is neat, cheap and complete, well made and will stand hard service. It is of great use as a farmer's repair shop, and is indispensable to a small shop or mechanic or any householder. It is a steel-faced anvil, and its weight when complete is about 50 pounds. An illustrated circular will be sent to the trade on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

Hanson Vise as Anvil.

TEN MILES OF CHAIN A DAY.

The Bridgeport Chain Co., Bridgeport, Conn., send us their catalogue No. 8, which calls atetntion to their line of chains. They have adopted an entirely new schedule of prices for their Triumph and Brown coiled halter and tie out chains. They make a very complete and attractive assortment of aluminum kennel chains and dog leads. Among other new goods, they call attention to their Triumph hame fastener. Their Triumph weldless chain is a wire chain having a locked joint, and it will not kink, and, being formed by automatic machinery, every link is uniformly made and accurate in pitch for sprocket use. Their Brown chain is uniformly made from very tough and hard drawn Bessemer steel wire, and presents no rough surfaces. Their Perfection twisted link chain is very similar in appearance to the German twisted link chain, but has a much higher tensile strength. It is ingeniously dovetailed by a patent cold swaging process. Their dog shains show a great variety. The Brown cow ties combine strength with lightness and positively will not chafe or fret the animals, as ring links are used the entire length of one neck piece of all patterns the adjustment is unlimited. The Triumph hame fastener is rapidly fastened, as all that is necessary to fasten the hames is to insert the locking lever into such link as will draw the hames taut, and by a sharp pull on the lever, it will lock the hames perfectly into place. These are only a few of the many chains shown in this interesting chain encyclopedia. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

MEETINGS STATE HARDWARE ASSOCIATIONS.

Feb. 1, 2, 3—North Dakota Retail Hardware Dealers' Association will meet in Fargo; headquarters, Commercial Club.

Feb. 1-2—Wisconsin Retail Hardware Dealers' Association will meet in Milwaukee; headquarters, Republican House.

Feb. 7-8—Nebraska Retail Hardware Dealers' Association will meet in Omaha; headquqarters, Millard Hotel.

Feb. 8, 9, 10—Iowa Retail Hardware Dealers' Association will meet in Des Moines; headquarters, Savery Hotel.

Feb. 14, 15, 16—Illinois Retail Hardware Dealers' Association will meet in Peoria; no particular hotel as headquarters; meetings held at Turner Hall. L. M. Reeves, Peoria, Ill., will furnish information concerning display hall for jobbers and manufacturers.

Feb. 14-15—Colorado Retail Hardware Dealers' Association.

Feb. 21, 22, 23—Indiana Retail Hardware Dealers' Association will meet at Indianapolis; headquarters, Dennison Hotel.

Feb. 22, 23, 24—Minnesota Retail Hardware Association, Duluth; headquarters, Hotel Spalding.

Feb. 28, March 1—Missouri Stove & Hardware Dealers' Association will meet at St. Joseph.

Feb. 28, March 1-2—Ohio Hardware Association, Dayton; headquarters, Algonquin Hotel.

MEETING SOUTHWESTERN KANSAS AND OKLAHOMA IMPLEMENT AND HARDWARE DEALERS' ASSOCIATION.

The Southwestern Kansas and Oklahoma Implement and Hardware Dealers' Association met at Wichita, Dec. 13th, 14th and 15th.

The association convened Dec. 13th at 10 o'clock in the council chamber at the city building. The feature of the session was the address by Jerome Shamp of Lincoln, Neb., president of the South Platte Dealers' Association, and the reports of H. C. Taylor of Lyons and T. G. Wiles of Cherokee, president of the National Federation of Dealers.

H. C. Taylor, of Lyons, Kans., was elected president and C. P. Green, of Alva, O. T., vice-president.

DESIRE RATE EQUALIZATION.

On Dec. 13th a number of leading Kansas City, Mo., hardware dealers met at the Coates House, that city, to discuss inequalities in hardware classifications.

East of the Mississippi hardware is specified as third class freight; west of the river it is made second class freight. The Kansas City jobbers want it made third class on a through rate that they may be able to better compete with Eastern firms. The meeting decided to present their grievance to the January meeting of the Trans-Missouri Freight Association, with a request for the equalization of the rate.

Heating and Ventilating

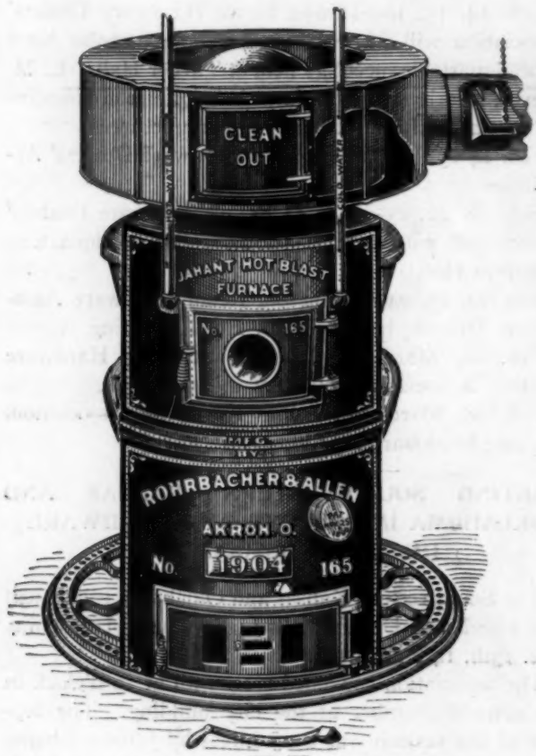
Edward S. Mobley & Bro. are a new Frederick, Md., heating concern.

On petition of Henry D. Grahs, Geo. B. Funk has been appointed receiver of the Miskimen Furnace Co., Logansport, Ind.

The Hart & Cooley Co., New Britain, Conn., manufacturers of wrought steel warm air registers, are erecting an addition to their factory 52x105 feet in dimensions and two stories in height.

JAHANT HOT BLAST FURNACE.

Rohrbacher & Allen, Akron, O., are manufacturers of the Jahant hot blast furnace, shown in the accompanying illustration. The base for the portable furnace and bottom ring for holding double casing is made in one section, adding strength and holding the furnace firmly on the foundation. There is sufficient space allowed to fully supply the furnace with air from the pit underneath, and also to allow the air to pass between the outer and inner casing. The ash pit is deep and wide. It gives an unusually large space under the grate for holding the ashes. The grate is vibratory in form and has a rocking grate supporting bar with projecting lugs for supporting or agitating the pivoted grate sections. It requires very little power to rock the crank for the purpose of raising and lowering the grate section and thoroughly agitating and disturbing the entire mass of coal, at the same time dislodging the ashes throughout the fire pot, and thus assuring perfect combustion of all the coal, it is claimed. The fire pot is constructed in two nearly equal parts. The upper and lower sections can expand and contract independently of each other during the progress of heating and cooling.



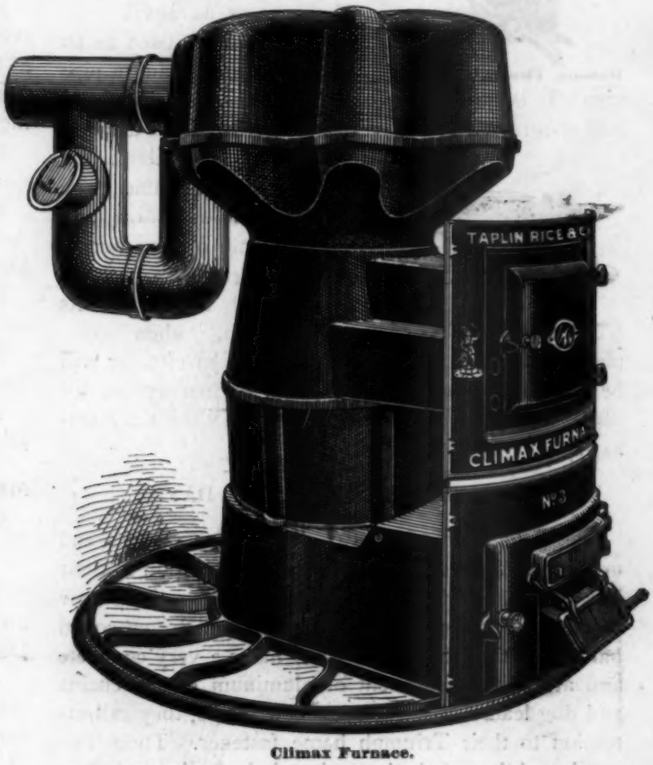
Jahant Hot Blast Furnace.

CLIMAX FURNACE.

Taplin, Rice & Co., Akron, O., are manufacturers of the Climax furnace shown herewith.

In their introductory statement to the trade this firm says:

"In bringing the Climax furnace to the trade we feel that a brief statement is not out of place in order to give evidence that we are not novices and beginners in the furnace business. During the past fourteen years we have designed and made both wood and iron patterns, as well as thousands of tons of finished castings for eight different furnace manufacturers who are now doing business in various parts of the United States. This experience, coupled with the manufacture of heating stoves and ranges since the year 1866, certainly warrants us in posing as experienced manufacturers of furnaces and heating apparatus."



Climax Furnace.

COKE AND COKE BOILERS.

The American Radiator Co., 282-284 Michigan Ave., Chicago, send us a little circular calling attention to their Ideal coke steam and water boilers. The Ideal coke steam boilers are made in four types, having 22x17x12 and 10-inch grates, respectively. The ratings are from 225 to 2,600 square feet of direct radiating surface. There are 15 sizes in all, and they are connected by Ideal push nipple joints. The Ideal coke water boilers are made in 5 types, having 22x17x12x10x8-inch grates, respectively. The ratings are from 375 to 4,300 square feet of direct radiating surface.

There are 19 sizes in all, the 8-inch size being de-

signed specially for tank water heating. They are connected by this firm's specially machined and highly perfected push nipples.

MEETING AMERICAN SOCIETY N. A. S. H. AND V. E.

The American Society of Heating and Ventilating Engineers will hold their annual meeting in New York City Jan. 17-19 next.

The Nominating Committee has performed its labors and has submitted the following list, from which the members will select officers for the coming year:

President—Wm. Kent, Syracuse, N. Y.; John Gormly, Philadelphia, Pa.

First Vice President—R. P. Bolton, New York; H. L. Hall, New York.

Second Vice President—C. B. J. Snyder, New York; J. J. Blackmore, New York.

Secretary—W. M. Mackay, New York; H. A. Joslin, New York.

Treasurer—U. G. Scollay, Brooklyn, N. Y.; F. P. Blodgett, Brooklyn, N. Y.

Board of Governors—J. C. F. Trachsel, Philadelphia, Pa.; W. N. Haden, Trowbridge, England; James Mackay, Chicago, Ill.; B. F. Strangland, New York; B. H. Carpenter, Wilkes-Barre, Pa.; C. R. Bishop, Lockport, N. Y.; Thomas Barwick, New York; Wm. H. McKiever, New York; H. A. Loeb, Philadelphia, Pa.; A. B. Franklin, Boston, Mass.

GOLD COIN STOVES.

The Chicago Stove Works, Blue Island Avenue and 22nd Street, Chicago, send us their supplemental catalogue No. 33, showing their line of Gold Coin stoves and ranges.

The original Gold Coin steel ranges have all parts coming in direct contact with heat thoroughly protected with cast-iron plates and asbestos.

The body is mounted with heavy gauge polished steel plate. The oven is reinforced by heavy cast-iron braces, making it imposible for plates to weave the smallest fraction of an inch. The oven door is evenly balanced, and when lowered forms a smooth shelf. The fire box is constructed so that the combustion is perfect, and for coal is supplied with brick or iron linings, as desired. A separate and distinct fire box is furnished for wood only, which will admit of 24-inch wood by removing the end lining and reserving the duplex grate. The ash pit admits of an extra large ash pan, provided with guards, preventing dust or ashes being scraped off or drawn into the room. The feed door is extra large, which drops down, making a clean feed for either coal or wood. The broiler and pouch feed doors are novel features, and will be found very desirable for broiling or toasting purposes. The top is furnished with interchangeable key plates, permitting of seven, eight or nine-inch covers; also blank plates if desired. The high shelf and high closet are particularly spacious. Reservoir casings on the encased reservoir are all cast iron, making them rust-proof. The exterior of the Gold Coin range is of pleasing design, enriched by ornamental nickel panels and nickel steel edge on top plate. The Merit Gold Coin range has body made of extra polished blue steel plates, securely riveted and braced. The fire pot is oval, with heavy fire back, constructed for burning all the gases, duplex grate adapted for all kinds of fuel. The oven is a strong feature, ventilated, very roomy. The reservoir is rust proof, all cast iron enameled.

The National and Champion Gold Coin polished steel cooks have many points to recommend them to the trade.

The Novel Gold Coin coal range, for hard coal, soft coal or wood, with duplex or draw center grates, has large oval fire box, with sectional brick or iron linings.

Grates that are interchangeable without removing the linings.

High ovens practically square and thoroughly ventilated.

Tops extra large, extending flush over reservoir, mounted in sections to lessen possibility of breakage, and supplied with our ventilated centers and Boston ring covers.

The nickel trimmings consist of handsome nickel name plate, nickel over door shelf, nickel front door panel, nickel edge on top plate, nickel band on top shelf, nickel wing on hearth, nickel tea stands, towel rail, knobs, etc.

The Gold Coin Ventiduct base burner is constructed upon the most approved and scientific principles. The cold air from the room enters through an aperture in the bottom of the stove, passing through the perpendicular tubes, becomes intensely heated, and rapidly expanding rushes with great velocity from out the top of the stove.

Every stove is a double heater. They have heavy solid fire pot, duplex grates and shaking ring, grates removable without disturbing the fire pot, automatic magazine cover, teakettle attachment, dampers which cannot warp or burn off and easily accessible base flues. They are elaborately trimmed with finest quality of nickel trimmings, thoroughly ventilated to prevent tarnishing.

One of these catalogues will be forwarded the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

SOME AFTER DINNER SPEECHES.

The Book Keeper Publishing Co., Ltd., Detroit, Mich., are publishers of an interesting little book entitled "After Dinner Speeches," which is compiled for the entertainment of those to whom the practice of after dinner speaking has not become second nature through constant repetition. The preface tells of the guest who was called on at 1 o'clock a. m. after a particularly long and tiresome effort by a prosing speaker with no particular message and who made a clever hit by saying, "Demosthenes is dead, Cicero is dead, and I am not feeling well myself." The speeches given include one by Senator Chauncey M. Depew on the topic, "If Captain Miles Standish Were Here;" "American Good Citizenship," by Ex-President Grover Cleveland;" "The Great Mississippi Valley," by John M. Allen; "A Protest Against Coercion in Ireland," by Hon. Bourke Cockran; "A Few Remarks," by Hon. J. Adam Bede; "The Employer-Employe Association and What It Has Done for Labor," by Samuel B. Gompers; "The Duty and Dignity of Journalism," by Col. A. K. McClure; "Labor and Capital and the Civic Federation," by Senator Mark A. Hanna; "To the Dead and Living of the Grand Army of the Republic," by Ex-Gov. Wm. H. Bunn. Besides these and other after dinner speeches are a number of anecdotes suitable for after dinner use and a large variety of toasts, both witty and sentimental.

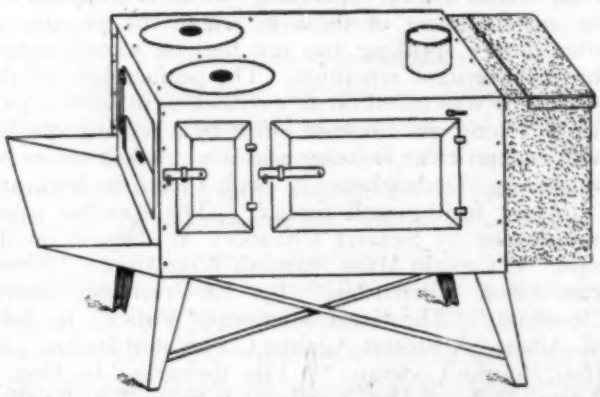
Tinshop

THE AMERICAN ARTISAN takes this occasion to announce that in its Tin Shop Department for 1905 it will present a series of sheet metal patterns by Joseph Coleman on the "Principles of Intersections" which will go very far toward revolutionizing present methods of the presentation of sheet metal patterns. Mr. Coleman is an experienced sheet metal worker, who has given years of study ot the question of the clear, concise and easy explanation of sheet metal patterns. These are presented on plates 6½x6 inches in size, every plate containing a number of patterns, there being 54 patterns commonly in demand in tinshop use on one single plate. Mr. Coleman's method has been to take the basic principle underlying a number of patterns, and then construct a plate on which are shown the series of related patterns which spring from the aforesaid principle. This graphic, concentrated and yet simple presentation of the subject will make the study of sheet metal patterns immeasurably easier than it has ever been before.

As these drawings are copyrighted and as Mr. Coleman will write exclusively for THE AMERICAN ARTISAN, we would suggest that it will pay dealers to present their tinners with a year's subscription to this publication as an acceptable and useful Christmas present. In spite of this and other new and special features of value during 1905, the subscription price will remain at the old figure of $2.00 per year.

A HANDY CAMP STOVE.

Herewith is a cut of a camp stove, made of No. 20 steel, 16 inches wide by 24 inches long by 12 inches deep, with oven 8 by 12 by 16 inches. The fire box is 6 by 8 by 16 inches. The bottom and front of the fire box lining is perforated to form a grate, and the door



in front end of stove has a draft slide lower than the bottom of fire box. The ends are flanged three-fourths inch and set in with the flanges out, and the edges riveted as shown in cut. The flues are arranged the same as in an ordinary cook stove, and a damper just in front of the pipe collar closes the direct draft, causing the heat to pass down and under the oven to the lower front corner, returning by the middle flue backward and up to the pipe. The reservoir at the back is of No. 27 galvanized iron and holds five or six gallons. The top wire, No. 6, is turned up at the ends as shown, to hook up through holes in the projecting top flange. When the damper is closed and the heat circulating around the oven the water heats very well. Two 7-inch cooking holes are cut directly over the fire box. The top is reinforced by riveting a cross of 1 by ⅛-inch band iron on under side, as shown by the lines of rivets.

SMITH'S GRAND CREAM SEPARATOR.

The Smith Bros. Mfg. Co., Indianapolis, Ind., are manufacturers of Smith's Grand cream separator, shown in the accompanying illustration. The inside can is made of a heavy grade of charcoal tin. The outer vessel or water tank is made of "Apollo Best Bloom" galvanized iron and is coated with aluminum bronze, showing the flakes of galvanizing through same. The handles and gauges are striped with gold bronze, giving the separator a very striking appearance. Each separator is crated in a separate crate, so that they are well protected in shipping.

Smith's Grand Cream Separator.

The inner can may be removed while the water remains in the outer vessel or water tank.

The combination faucet is fastened to the outer tank, and is not removable, therefore it cannot be damaged, it is claimed. There are both upper and lower gauges, thus showing when all the cream has raised. The concaved bottom of the inner can is double-seamed, and has a trough stamped in the center extending from the back to the front, so that every particle of milk and cream may be drawn off. The outer vessel or water tank is made of heavy "Apollo Best Bloom" galvanized iron. The bottom is double-seamed and well soldered, making it impossible for leakage. The handles are well riveted and soldered. The cover with patented attachment is, when reversed, used as a strainer. The cone wire strainer is removable. Removing the cone strainer and placing the perforated tin disc in the cover allows perfect ventilation while the separation takes place. The inner can is well coated with water proof paint, and will not rust. The water capacity of the outer vessel or water tank is very large, and the inner can is arranged so as to allow a large amount of water around and beneath the bottom. It is almost entirely surrounded by water. The inner can is easily removed for cleaning, by unscrewing the thumb screw at the top of the separator.

NOTES AND QUERIES.

GALVANIZING PLANTS.

From E. B. Coe, Clayton, Ill.

Would like address of firms who install galvanizing plants?

Ans.—Wm. B. Pollock Co., Youngstown, O.; Riter-

Conley Mfg. Co., Pittsburgh, Pa.; Wm. B. Scaife & Sons Co., Pittsburgh, Pa.; F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

SOLDER FOR ALUMINUM.

From F. W. Themes, Joliet, Ill.

What firm makes a solder for aluminum?

Ans.—Pittsburgh Reduction Co., Chicago, Ill.

CALOVIT STOVE.

From Ida P. Hatch, Pierre, S. D.

Who is the manufacturer of the Calovit stove?

(Can any of our readers answer this question?—Ed.)

MOORE'S SCHROEDERS AND SENSIBLE SASH FASTENERS.

From Knute Ringheim, Radcliffe, Ia.

Where can I buy Moore's Schroeders and Sensible sash fasteners?

(Can any of our readers answer this question?)

BRUSSELS CARPETS.

From "A. F. M.," Mackinaw, Ill.

Where can I buy Brussels carpets?

Ans.—Bigelow Carpet Co., New York; Bromley Carpet Co., Philadelphia, Pa.; J. W. Dimick Co., 115 Fifth avenue, New York; Firth Carpet Co., Firthcliffe, N. Y.; Hartford Carpet Co., Thompsonville, Conn.; E. S. Higgins Carpet Co., 41 Union square, New York, N. Y.; Ivins, Dietz & Magee, 1217 Market street, Philadelphia, Pa.; Lowell Mfg. Co., Lowell, Mass.; McCallum & McCallum, Philadelphia, Pa.; Palmer Carpet Mfg. Co., Palmer, Mass.; Stinson Bros., Philadelphia, Pa.

ENAMELED BRICK.

From Jno. Grey, Rome, Wis.

Where can I buy enameled brick?

Ans.—Birmingham Fire Brick Works, Birmingham, Ala.; Hydraulic Pressed Brick Co., Union Trust Bldg., St. Louis, Mo.; Merrimac Ceramic Co., Newburyport, Mass.; Somerset Enamel Brick Co., Somerset, Mass., and Tiffany Pressed Brick Co., Baltimore, Md.

CULINARY PAPERS.

From "J. S. E.," Rome, Wis.

Could you kindly give us a list of the principal papers devoted to cooking and food published in the United States and Great Britain?

Ans.—British Food Journal, m., 32 Shaftesbury avenue, W. London, Eng.; Caterer, m., 59 Chancery Lane, London, Eng.; Cooking and Catering World, b. w., 24 St. George's square, London, Eng.; Epicure, m., 94 Wigmore street, London, Eng.; Food and Sanitation, m., London, Eng.; Food and Cookery, 329 Vauxhall Bd. Rd., London, Eng.; Steward and Housekeeper, m., London, Eng.; Temperance Caterer, m., 57 Chancery Lane, London, Eng.; Vegetarian, w., 33 Paternoster Row, London, Eng.; Table, w., 16 James St., Hymkt. S. W., London Eng.; Vegetation Messenger, m., 19 Oxford street, Manchester, Eng.; Caterers' News, 110 W. Second street, Los Angeles, Cal.; Chef, Steward and Housekeeper, 325 Dearborn street, Chicago, Ill.; Hotel Monthly, m., 325 Dearborn street, Chicago, Ill.; What to Eat, m., 1737 Washington street, Chicago, Ill.; Vegetarian Magazine, m., 167 Dearborn street, Chicago, Ill.; Cooking Club, m., Goshen, Ind.; Home Science Magazine, m., 30 Huntington avenue, Boston, Mass.; Boston Cooking School Magazine, m., Homestead Bldg., Springfield, Mass.; The Caterer, m., 145 E. Forty-second street, New York, N. Y.; Dinners and Dining, m., New York, N. Y.; Food and Drink, m., 149 Church street, New York, N. Y.; Table Talk, m., 1113 Chestnut street, Philadelphia, Pa.; Food Topics, m., Free Press Bldg., Milwaukee, Wis.

ITEMS.

J. E. Garrett has sold his tinsmithing business at Peirce City, Mo., to E. Krentzberg.

A. J. Gaw, Jr., is president, J. E. B. Stuart is treasurer and J. J. Roberts is secretary of the Peerless Can Mfg. Co., Newport News, Va., capitalized at $25,000 for the manufacture and sale of oil and gasoline cans and tinware.

The creditors of the Jackson Iron & Tin Plate Co., Parkersburg, W. Va., will hold a meeting on Dec. 27th, when it is expected that the recent sale of the bankrupt's property will be confirmed and the proceeds divided among the creditors.

Merchant & Co., Inc., Philadelphia and Chicago, have recently issued a little booklet calling attention to a number of their tin plates and process of their manufacture. Each one of their plates is handled by a large force of extra workmen while being manufactured, and long practice has made each of these men especially fitted for his own special work. Their palma brand has an extra charcoal finish, is packed in tissue paper, has an extra coating, is cleaned by hand and is made with palm oil in the best possible manner. The Florence is a bright plate that is very popular with tinware manufacturers, makers of dairy supplies, etc.

One of the firms foremost in the manufacture of paints and cements in the United States are found in the Wm. Connors Paint Mfg. Co., 669-675 River St., Troy, N. Y. This firm are manufacturers of the widely known American Seal paints and cements, made in any desired shade or color for houses, floors, roofs, fences, cars and bridges, and for slate, tile and metal roofs and for stoves, ranges and furnaces. They also make carriage gloss, paint paste stove polish, mortar colors, white lead and zinc paints, colors, putties, etc. A specialty of theirs which is in immense vogue with the roofing trade is found in their American Seal elastic oil cement, which is unequaled for use on leaky roofs.

The Carnahan Stamping & Enameling Co., Canton, O., send us their handsome enameled ware catalogue. This shows a complete assortment of their French granite enamel ware. This firm have their own open hearth furnaces for the manufacture of bars, their own rolling mills for the manufacture of black sheets, and also for tin plate, and their own stamping and enameling works for the manufacture of the finished article. The clay modeled cover design is a symmetrical rococo, to use a paradox. It is adorned by a couple of hippogriffs that look as if they had the earmarks of the Cerberean breed. The typographical work is also very pleasing. One of these volumes will be forwarded the trade on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

THE UNITED STATES PATENT SYSTEM.

BY CHARLES D. DAVIS, OF THE WASHINGTON BAR.

FOUNDATION OF PATENT LAWS.

The patent laws of the United States are founded upon a clause in the constitution which gives Congress the power to promote the progress of the useful arts by securing to inventors for limited periods the exclusive monopoly to their inventions, this monopoly carrying with it the right to manufacture, sell and to use the inventions to the exclusion of all other persons.

COUNTRY IS AN EXPORTER.

The fact that this country has advanced industrially beyond all others, being now an exporter to the very countries which have for years been considered the "workshops" of the world, is evidence of the utility and importance of the patent system, since there is no doubt but that our industrial growth has been largely due to the stimulus afforded by the patent system, its liberal provisions encouraging invention and investment more than the patent laws of any other country. Most foreign countries impose illiberal conditions to the grant or continuance of patents, but the laws of our country are extremely liberal and are therefore taken advantage of by even the poorest of individuals. It is this liberality in the patent laws that has developed the native genius of the American people to a higher degree than has ever been reached by any people the world has known.

OPERATION OF PATENT LAWS.

The importance of this system of granting monopolies upon inventions is therefore now so great that it has become a matter of interest to all classes of persons to understand the operation of the laws relating to patents. In 1800 there had been but 256 patents granted, while in 1903 there had been granted a total of about 750,000. The average number of applications for patents filed in the Patent Office is about 40,000 every year and this number is steadily increasing. In the current year it is estimated that there will be about 45,000 applications filed and about 28,000 patents issued. This is far ahead of any other country in the world; in fact, it is practically double that of its nearest competitor.

CONDITIONS OF GRANT.

The conditions under which patents are granted are very technical. The law requires that a full detail drawing of the invention, shall be filed in the Patent Office, together with the first government fee, fifteen dollars, and an affidavit to the effect that the applicant is the first and original inventor of the device sought to be protected; that the device in question has not been in public use or on sale in the United States for more than two years; that the device shall not have been patented or described in any printed publication in this or any foreign country for more than two years prior to the filing of the application. There are other less important conditions which are of a more technical nature and rarely concern the applicant residing in the United States. A model is not required by the Patent Office.

PATENT IS OFFICIALLY EXAMINED.

When the complete application, in proper form, has been filed in the Patent Office, the case is assigned to one of a number of official examiners, who examine the prior records with a view of ascertaining whether or not the invention embraced in the application conflicts with some prior patent or invention. If the examiner finds the invention to be novel he allows the patent, and then upon the payment of the final government fee, twenty dollars, the letters patent are issued under the signature of the commissioner and the seal of the Patent Office. The patent is granted for a term of seventeen years.

MECHANICAL AND DESIGN PATENTS.

There are two kinds of patents, one being the regular "mechanical" patent, which is granted for purely mechanical devices for a uniform term of seventeen years, and the other being what are known as "design" patents, which are granted only upon ornamental devices and for variable terms of three and one-half years, or seven years, or fourteen years, as the applicant may elect. These latter patents will be more fully described in a future article.

INTERFERENCE PROCEEDINGS.

It happens frequently that the application of rival inventors meet in the Patent Office. In that case the Patent Office declares what is called an "interference," which is a proceeding instituted for the purpose of ascertaining priority of invention. This proceeding is carried on exactly as a case in court, in that the parties to the contest are given opportunities for taking evidence to prove priority. When all the evidence is taken and printed the Patent Office decides the question of priority and awards the patent to the first inventor, unless the evidence shows inexcusable lack of diligence, in which case the more diligent applicant will be awarded the patent. Lack of diligence is only legally excusable in the case of extreme illness, extreme poverty and insanity, and like serious causes. No mere excuse that the applicant was delayed by the press of other business, or was perfecting other inventions, will prevail in a priority contest. It has been held in some decisions in priority contests that in case the inventor is too poor to carry on experiments and make the patent application, any efforts he may make to raise money will be considered in his favor.

PERSONS WHO CAN OBTAIN PATENTS.

Any person, whether citizen or alien, who is in possession of any new and useful art or process, manufacture, machine, composition of matter, or any improvement thereof, may obtain letters patent. The inventor must make the application in his own name, and where two or more persons are the inventors the application should be made in their joint names. Should the inventor be dead the application may be made by his executor or administrator. In case it is desired that the patent issue in whole or in part in the name of another the inventor may execute an assignment to that effect.

CAVEATS.

The law provides for filing what is called a caveat. It is for the purpose of protecting an incomplete or imperfect invention while the inventor is experimenting and testing the invention. The duration of a caveat is one year and its cost is ten dollars. It may be renewed from year to year as long as desired by the payment of ten dollars each year A description and a drawing of the invention, as far as it has been developed, is required to be filed in the Patent Office with the fee.

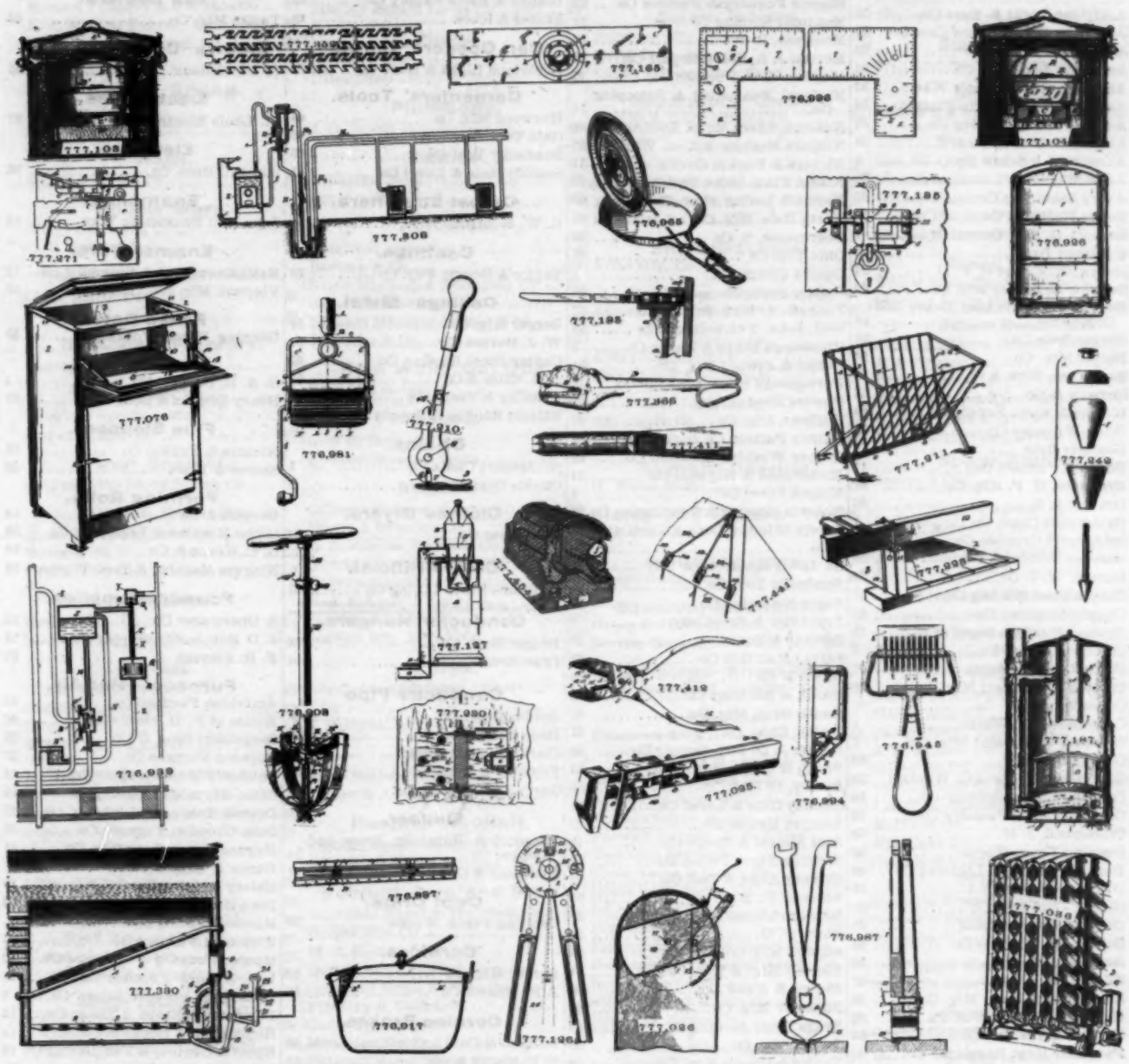
PRESENT LAW IS OF LITTLE VALUE.

It is now well understood that the present caveat law is of little value, and the patent commission appointed by President McKinley about three years ago recommended to Congress that the caveat law be abolished. It simply entitles the caveator to notification from the Patent Office in case of another person filing another application for patent for the same invention, and gives him three months in which to file his application for the completed device. When he filed his application for patent the caveator will be in almost precisely the same position as to the question of priority as though he had never filed his caveat, and it is for this reason that the caveat law is of practically no utility in preserving an inventor's priority.

REISSUES.

The law provides for reissuing of defective and inoperative patents, but under recent decisions of the Supreme Court of the United States it is almost impossible to have patents that are narrow and limited in scope broadened by means of reissue. The government fee for reissues is thirty dollars, but a reissue does not prolong the life of the monopoly, all reissue patents expiring at the same time as the oirginal patent would have expired. Extensions of patents are not provided for in the law and the only way to obtain an extension is by act of Congress. There have been but few extensions granted by Congress and it not considered practically impossible to obtain congressional extension in view of the liberality of the law regarding the term of the original patent.

NEW PATENTS.



776,894—Grate Attachment. Charles E. Dittrich, Birmingham, Ala.

776,897—Combination-ruler. Will H. Ferris, Franklinville, N. Y.

776,903—Post-hole Auger. Samuel G. Givens and Charles E. Gridley, Paducah, Ky.

776,917—Cover for Kettles. Miriam Kingsbury, Denver, Colo.

776,926—Steam Cooking Device. Mathew W. Misener, Vancouver, Canada.

776,639—Hot-water Heating Apparatus. Anders B. Reck, Copenhagen, Denmark.

776,945—Meat-tenderer, also Vegetable-cutter. Ernst G. Riedel, Einsiedel, near Chemnitz, Germany.

776,965—Holder or Lifter for Pan Lids or Covers. James N. Thomas, Burlington, Wis.

776,981—Combined Mop and Wringer. Thomas G. Amsden, Buffalo, N. Y.

776,987—Combination-tool. Andrew P. Berggreen, Elkhorn, Iowa.

776,996—Folding Square. Henry T. Buhmeier, Elgin, Ill.

777,026—Mail-box. William G. Jones and Richard M. George, Chattanooga, Tenn.

777,036—Radiator. Walter Leek, Vancouver, Canada.

777,076—Refrigerator Attachment. Aaron J. Chaffin, Ripon, Wis.

777,103—Apparatus for Cooking by Retained Heat. Felix Kahn, New York, N. Y.

777,104—Apparatus for Cooking by Retained Heat. Felix Kahn, New York, N. Y.

777,126—Combination Wire-working Tool. Alvord M. McLeran, Kansas City, Mo.

777,025—Wrench. Hugo Jacobsen, Kankakee, Ill.

777,127—Heating and Ventilating System. Preston K. McMinn, Chicago, Ill.

777,135—Barn-door Bolt and Lock. Ozro G. Parsons, Edina, Mo.

777,165—Level. Patrick M. Walsh, New York, N. Y.

777,185—Clothes-rack. Noah M. Coyner, Frankfort, O.

777,187—Stove. Theodore A. Doughty, Woodstock, Ill.

777,210—Nail-extractor. George Hovenden and Hiram A. Hovenden, Peoria, Ill.

777,211—Collapsible Dish-drainer. David E. Jones, Lima, Ohio.

777,223—Wagon-bed. Max Roeh, Denison, Iowa.

777,230—Hinge. James A. Wells, Battlecreek, Mich.

777,242—Plumb-bob. Charles J. Caley, New Britain, Conn.

777,271—Lock. Heinrich Alrutz and Richard Werner, Charlottenburg, Germany.

777,308—Hot-water Heating Apparatus. Anders B. Reck, Hellerup, Denmark.

777,330—Damper. Michael J. Carrigan, Glenns Ferry, Idaho.

777,352—Furnace-grate. Ramon M. Rubio, Puerto Real, Spain.

777,366—Shears. Charles O. Bergmark, Chisholm, Minn.

777,411—Putty-knife. James O. Hall, Phoenix, Ariz.

777,412—Wire-working Implement. Joseph Hamel and Alphonse Hardy, Quebec, Canada.

777,438—Kitchen-cabinet. Benedict J. Schlanzer, Sr., Indianapolis, Ind.

777,441—Roof-anchoring Device. Wily Small, Dallas, Texas.

777,454—Furnace. William E. Walsh, Morris, Ill.

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Acetylene Light & Heat Co.....51-58
American Bolt & Screw Case Co.. 59
American Furnace Co..... 23
American Lock Nut Co..... 54
American Stove Repair Wks..... 52
American Sheet & Tin Plate Co.... 56
Asphalt Ready Roofing Co..... 54
Atkins, E. C. & Co..... 68
Atlas Bolt & Screw Co..... 1
Atlas Mfg. Co 68
Avery Stamping Co..... 60
Baker McMillen Co..... 64
Barnett, G. & H. Co..... 1
Beckman Bros 65
Beckwith, Estate of P. D..... 24
Benbow-Brammer Mfg. Co..... 60
Benedict & Burnham Brass and Copper Co..... 54
Berger Bros. Co..... 58
Berger Mfg. Co 56
Bergstrom Bros. & Co..... 23
Bertsch & Co..... 58
Blanke & Hauk Supply Co..... 63
Blick-Williams Co..... 63
Bommer Bros 1
Boynton Furnace Co..... 17
Brammer, H. F. Mfg. Co..... 61
Brauer, A. G. 52
Bridgeport Chain Co 1
Bridgeport Crucible Co..... 53
Burgess Soldering Furnace Co.... 55
Burton, W. J. Co..... 54
Canton Steel Roofing Co..... 57
Chapin-Stephens Co..... 65
Chicago Furnace Supply Co..... 13
Chicago Stove Wks.....8-13
Clark, Quien & Morse..... 61
Clayton & Lambert Mfg. Co..... 55
Columbian Hdw. Co..... 67
Columbus Bolt Works 1
Connors, Wm. Paint Mfg. Co..... 1
Cooney & Geiger..... 68
Cope, Geo. W. Pattern Works.... 52
Cortright Metal Roofing Co..... 54
Craig-Reynolds Foundry Co..... 19
Crammond, J. H..... 60
Denning Fence Works..... 59
Detroit Heating & Lighting Co ... 22
Dieckmann, Ferd..... 55
Diener, Geo. Mfg. Co..... 55
Disston, Henry & Sons 66
Dixon, Jos. Crucible Co. 53
Dust, Wm. T. Co..... 52
Eller, J. H. & Co. 57
Emmelmann Bros. Mfg. Co..... 55
Enterprise Mfg. Co. of Pa..... 66
Exhibit & Trading Co..... 50
Farquhar Heat Regulator Co..... 20
Farwell, Ozmun, Kirk & Co..... 65
Folsom, C. G..... 62
Fox Cutlery Co..... 59
Franklin Specialty Co 59
Freeman Stamping Co 62
Friedley & Voshardt..... 57
Garry Iron & Steel Co..... 54
Gem City Stove Co..... 9
Globe Machine & Stamping Co ... 58
Globe Stove & Range Co..... 6
Globe Ventilator Co..... 68
Great Western Stove Repair Co.. 52
Grossius, John, Furnace Co 23
Hawkeye Wrench Co..... 59
Haynes-Langenberg Mfg. Co..... 21
Henry & Scheible Co..... 21
Hill Dryer Co..... 64
Hoffman, Geo. W 53
Home Pride Range Co 3
Hooper, C. N..... 50
Hurwood Mfg. Co..... 64
Illinois Roofing & Supply Co..... 68
Iwan Bros 56
Johnson, E. J. & Co..... 57
Joliet Stove Works..... 7
Kavel, M. & Co..... 59
Keene, Geo. C. & Co..... 58
Kelsey Heating Co 19
Kimball Bros. Co..... 55
Kontny, John.....18-19
Kramer Bros. Fdy. Co 52
Lee-Glass-Andreesen Hdw. Co.. .. 67
Lufkin Rule Co..... 64
Mansfield Stove Pattern Works .. 52
March-Brownback Stove Co 16
Marion Stove Co..... 13
McClure Co 68
Merchant & Co..... 54
Miskimen Furnace Co..... 20
Monroe Foundry & Furnace Co.... 22
Montross Roofing Co..... 54
Montross, R. W..... 59
Morris, J. L. Stove Repair Co..... 52
Mueller, L. J. Furnace Co 15
National Enameling & Stamping Co..... 11
National Sheet Metal Roofing Co. 54
Niagara Machine & Tool Works.. 58
Nichols & Rankin Co..... 51
Nickel Plate Stove Polish Co..... 13
Norris & Loring Hdw. Co..... 50
North Bros. Mfg. Co..... 64
Obermayer, S. Co 53
Ohio Tool Co 65
Oneida Community..... 1
Osgood Scale Co..... 68
Peck, C. A. Hdw. & Mfg. Co..... 62
Peil, John, Enameling Wks 53
Pittsburgh Stove & Range Co..... 2
Plume & Atwood Mfg. Co..... 54
Portsmouth Stove & Range Co ... 16
Powers Bros..... 68
Pullman Mfg. Co 60
Quincy Pattern Co 52
Quincy Washing Machine Co..... 61
Richardson & Boynton Co 14
Ringen Stove Co..... 4
Roberts Heating & Ventilating Co 23
Safety Window Lock & Ventilator Co..... 63
St. Louis Electrotype Fdy..... 57
Sandusky Tool Co..... 65
Sayre Stamping Co..... 52
Schneider & Trenkamp 5
Schwab & Sons Co..... 20
Signal Mail Box Co..... 63
Silver & Co 59
Smith & Anthony Co..... 13
Smith Bros. Mfg. Co..... 63
Smith, Chas. Co..... 21
Smith, J. D. Fdy. Supply Co..... 53
Smith & Hemenway Corp., Ltd ... 64
Sperry, D. R. & Co..... 59
Stanley Rule & Level Co..... 65
Stanton Heater Co 23
Star Shovel & Range Co..... 12
Sterling Stove Polish Co 53
Stevens Arms & Tool Co..... 68
Stevens, F. B..... 53
Stockhoff Supply Co..... 68
Stolz, F. D..... 21
Stowell Mfg. Co..... 54
Stowell Mfg. & Fdy. Co 51
Stuber & Kuck..... 68
Superior Mfg. Co..... 51
Sykes Steel Roofing Co 55
Taplin Mfg. Co..... 63
Taylor & Boggis Fdy. Co..... 62
Titchener & Co 59
United States Washing Machine Co..... 61
Utica Drop Forge & Tool Co..... 64
Van, John, Range Co..... 11
Vedder Pattern Works..... 52
Vollrath Mfg. Co 10
Weiss, H. & Co..... 58
Weller Pattern Co..... 52
White Lilly Washer Co..... 61
Williams Stove Lining Co..... 53
Wise Furnace Co..... 22

CLASSIFIED LIST.

Acetylene Gas Machines.
Acetylene Light & Heat Co.....51-58

Anvils.
Columbian Hdw. Co..... 67

Ash Sifters.
Hill Dryer Co 64

Augers—Earth.
Iwan Bros..... 56

Bolts.
Atlas Bolt & Screw Co..... 1
Columbus Bolt Wks..... 1

Brass
Benedict & Burnham Brass and Copper Co..... 54
Merchant & Co..... 54
Plume & Atwood Mfg. Co..... 54

Burrs—Copper
Plume & Atwood Mfg. Co..... 54

Cans.
Blanke & Hauk Supply Co..... 63
Stuber & Kuck 68

Can Openers—Carbide.
Acetylene Light & Heat Co 51-58

Carpenters' Tools.
Hurwood Mfg. Co..... 64
Ohio Tool Co..... 65
Sandusky Tool Co..... 65
Stanley Rule & Level Co. 65

Carpet Stretchers.
R. W. Montross 59

Castings.
Taylor & Boggis Fdy. Co..... 62

Ceilings—Metal.
Berger Mfg. Co 56
W. J. Burton Co..... 54
Canton Steel Roofing Co..... 57
J. H. Eller & Co 57
Friedley & Voshardt..... 57
Illinois Roofing & Supply Co..... 68

Chains.
Bridgeport Chain Co 1
Oneida Community..... 1

Clothes Dryers.
Hill Dryer Co..... 64

Coal—Artificial.
Williams Stove Lining Co 53

Conductor Hangers.
Berger Bros. Co 58
Iwan Bros 56

Conductor Pipe
Berger Bros. Co..... 58
Berger Mfg. Co..... 56
Clark, Quien & Morse..... 61
Friedley & Voshardt..... 57
Garry Iron & Steel Co..... 54

Copper.
Benedict & Burnham Brass and Copper Co..... 54
Merchant & Co 54

Corn Cribs.
Denning Fence Works..... 59

Cornices.
Berger Mfg. Co..... 56
J. H. Eller & Co. 57

Cornice Brakes.
Bertsch & Co 58
G. C. Keene & Co..... 58
Niagara Machine & Tool Wks 58

Corrugated Iron.
Garry Iron & Steel Co..... 54
Sykes Steel Roofing Co 55

Cream Separators.
Blanke & Hauk Supply Co..... 63
Smith Bros. Mfg. Co..... 63

Cutlery.
Farwell, Ozmun, Kirk & Co..... 65
Fox Cutlery Co..... 59
Ohio Tool Co..... 65
Smith & Hemenway Corp., Ltd. .. 64

Dairy Supplies.
Blanke & Hauk Supply Co..... 63

Dampers.
Wm. T. Dust & Co..... 52
Sayre Stamping Co..... 52

Dies Sheet Metal.
Globe Machine & Stamping Co.... 58

Dish Washers.
Freeman Stamping Co 63

Door Hangers.
Stowell Mfg. & Fdy. Co..... 51

Door Pulls.
Columbian Hdw. Co..... 67

Drills.
North Bros. Mfg. Co..... 64

Eaves Trough.
J. H. Eller & Co..... 57
Garry Iron & Steel Co..... 54

Egg Beaters.
Taplin Mfg. Co..... 63

Elbows—Conductor Pipe.
F. Dieckmann..... 55

Electrotypes.
St. Louis Electrotype Fdy..... 57

Elevators.
Kimball Bros. Co..... 55

Enameling.
John Peil Enameling Wks..... 53

Enamel Ware.
Nat'l Enameling & Stamping Co.. 11
Vollrath Mfg. Co..... 10

Fence Gates.
Denning Fence Works..... 59

Files.
G. & H. Barnett Co 1
Henry Disston & Sons 66

Flue Stoppers.
Nichols & Rankin Co..... 51
Stuber & Kuck 68

Forming Rolls.
Bertsch & Co 58
Globe Machine & Stamping Co ... 58
G. C. Keene & Co 58
Niagara Machine & Tool Works.. 58

Foundry Supplies.
S. Obermayer Co 53
J. D. Smith Fdy. Supply Co..... 53
F. B. Stevens..... 53

Furnaces—Hot Air.
American Furnace Co. 23
Estate of P. D. Beckwith..... 24
Bergstrom Bros. & Co..... 23
Boynton Furnace Co..... 17
Chicago Furnace Supply Co..... 13
Craig-Reynolds Foundry Co..... 19
Detroit Heating & Lighting Co... 22
John Grossius Furnace Co..... 23
Haynes-Langenberg Mfg. Co..... 21
Henry & Scheible Co 21
Kelsey Heating Co 19
John Kontny.....18-19
March-Brownback Stove Co 16
Miskimen Furnace Co..... 20
Monroe Foundry & Furnace Co... 22
L. J. Mueller Furnace Co..... 15
Pittsburgh Stove & Range Co.... 2
Portsmouth Stove & Range Co.... 16
Richardson & Boynton Co..... 14
Roberts Heating & Ventilating Co 23
Schwab & Sons Co..... 20
Smith & Anthony Co..... 13
Chas. Smith Co..... 21
Stanton Heater Co 23
Stockhoff Supply Co..... 68
Wise Furnace Co..... 22

Furnace Attachments.
Farquhar Heat Regulator Co..... 20

Furnace Pipe and Fittings.
Chicago Furnace Supply Co 13
Stockhoff Supply Co..... 68

Furnace Repairs.
American Stove Repair Wks..... 52
Great Western Stove Repair Co.. 52
J. L. Morris Stove Repair Co..... 52

General Merchandise.
Silver & Co 59

Guns.
Lee-Glass-Andreesen Hdw. Co. .. 67
Stevens Arms & Tool Co..... .. 68

Hammers.
Franklin Specialty Co..... 59

Hardware Jobbers.
Clark, Quien & Morse..... 61
Farwell, Ozmun, Kirk & Co..... 65
Lee-Glass-Andreesen Hdw. Co... 67
Norris & Loring Hardware Co.... 50

Hay Knives.
Iwan Bros 56
Stowell Mfg. & Fdy. Co..... 51

Heaters—Steam and Hot Water.
Boynton Furnace Co 17
Haynes-Langenberg Mfg. Co..... 21
Monroe Foundry & Furnace Co... 22
L. J. Mueller Furnac Co..... 15
Richardson & Boynton Co 14
Chas. Smith Co..... 21

Hinges—Spring.
Bommer Bros..... 1
Columbian Hdw. Co..... 67

Hoes.
Sandusky Tool Co..... 65

Hollow Ware.
Avery Stamping Co..... 60
D. R. Sperry & Co..... 59

Hot Water Attachments.
Chas. Smith Co..... 21
F. D. Stolz..... 21

Ice Cream Freezers.
North Bros. Mfg. Co..... 64

Ice Picks.
Franklin Specialty Co 59
Hurwood Mfg. Co..... 61

Iron Enamel.
Nickel Plate Stove Polish Co 13

Kitchen Utensils.
Enterprise Mfg. Co. of Pa..... 66
Silver & Co 59
Taplin Mfg. Co..... 63

Lanterns.
Berger Mfg. Co..... 56
Hurwood Mfg. Co.....61

Levels.
Baker McMillan Co..... 64
Chapin-Stephens Co. 65
Ohio Tool Co..... 65
Stanley Rule & Level Co..... 65

Lighting Systems.
Acetylene Light & Heat Co.....51-58
Detroit Heating & Lighting Co... 22
Superior Mfg. Co 51

Mail Boxes.
Blick-Williams Co 63
C. G. Folsom 62
Illinois Roofing & Supply Co..... 68
C. A. Peck Hdw. & Mfg. Co 63
Signal Mail Box Co..... 63
Taylor & Boggis Foundry Co..... 62

Meat Choppers.
Enterprise Mfg. Co. of Pa..... 66
Smith & Hemenway Corp., Ltd... 64

Metal Polish.
Geo. W. Hoffman..... 53

Metal Shingles.
W. J. Burton Co..... 54
Cortright Metal Roofing 54
Montross Roofing Co..... 54
National Sheet Metal Roofing Co. 54

Mica.
A. G. Brauer..... 52
Wm. T. Dust Co 52
J. L. Morris Stove Repair Co..... 52

Nail Pullers.
Norris & Loring Hdw. Co..... 50
Smith & Hemenway Corp., Ltd... 64

Nuts.
American Lock Nut Co..... 54
Atlas Bolt & Screw Co..... 1
Columbus Bolt Works 1

Oil Cans.
Cooney & Geiger 68

Paints.
Wm. Connors Paint Mfg. Co..... 1
Jos. Dixon Crucible Co..... 52

Pattern Letters.
St. Louis Electrotype Fdy..... 65

Pencils.
Jos. Dixon Crucible Co 52

Pistols.
Stevens Arms & Tool Co..... 68

Planes.
Chapin-Stephens Co..... 65
Ohio Tool Co..... 65
Sandusky Tool Co..... 65
Stanley Rule & Level Co..... 65

Pliers.
Hurwood Mfg. Co..... 64
Utica Drop Forge & Tool Co..... 64

Plumbago.
J. D. Smith Fdy. Supply Co..... 53

Pumps.
Beckman Bros..... 65
Berger Mfg. Co..... 56

Punches.
American Lock Nut Co 54
Bertsch & Co..... 58
Globe Machine & Stamping Co ... 58
Geo. C. Keene & Co 58
Niagara Machine & Tool Wks ... 58
H. Weiss & Co..... 58

Rain Water Cut Offs.
Cooney & Geiger..... 68

Rasps.
G. & H. Barnett Co..... 1
Disston, Henry & Sons..... 66

Registers.
Chicago Furnace Supply Co..... 13
Henry & Scheible Co. 21
L. J. Mueller Furnace Co..... 15
Norris & Loring Hdw. Co..... 50
Roberts Heating & Ventilating Co 22
R. J. Schwab & Sons Co 20
Stockhoff Supply Co 63
Stowell Mfg. & Fdy. Co 51

Rifles.
Lee-Glass-Andreesen Hardware Co..... 67
J. Stevens Arms & Tool Co 68

Rivets.
Atlas Bolt & Screw Co 1
Plume & Atwood Mfg. Co..... 54

Roofing—Asphalt.
Asphalt Ready Roofing Co 54
Stowell Mfg. Co..... 54

Roofing—Iron and Steel.
American Sheet & Tin Plate Co .. 53
Berger Mfg. Co..... 56
W. J. Burton Co..... 54
Canton Steel Roofing Co..... 57
Cortright Metal Roofing Co..... 54
Friedley & Voshardt..... 57
Garry Iron & Steel Co..... 54
Montross Roofing Co..... 54
National Sheet Metal Roofing Co. 54
Sykes Steel Roofing Co..... 55

Roofing Cement.
Wm. Connors Paint Mfg. Co..... 1
Garry Iron & Steel Co..... 54

Roof Paint
Wm. Connors Paint Mfg. Co..... 1
Joseph Dixon Crucible Co..... 52
Garry Iron & Steel Co..... 54

Rules.
Chapin.Stephens Co..... 65
Lufkin Rule Co..... 64
Stanley Rule & Level Co..... 65

Sad Irons.
Enterprise Mfg. Co. of Pa..... 66

Sash Balances.
Pullman Mfg. Co..... 60

Saws.
E. C. Atkins & Co 68
Henry Disston & Sons..... 66

Saw Sets.
E. C. Atkins & Co..... 68
Henry Disston & Sons..... 63
Smith & Hemenway Corp., Ltd... 64

Scales.
Beckman Bros..... 65
Osgood Scale Co..... 68

Screen Doors.
Norris & Loring Hdw. Co..... 50

Screws.
Atlas Bolt & Screw Co..... 1
Columbus Bolt Works..... 1

Screws—Hand.
Chapin-Stephens Co..... 65
Ohio Tool Co..... 65
Sandusky Tool Co..... 65

Screw Drivers.
Hurwood Mfg. Co 64
North Bros. Mfg. Co..... 64
Smith & Hemenway Corp., Ltd... 64

Separators—Cream.
Blanke & Hauk Supply Co..... 63

Shears
Bertsch & Co 58
Geo. C. Keene & Co..... 58
Niagara Machine & Tool Works.. 58
H. Weiss & Co..... 58

Shelf-Brackets.
Atlas Mfg. Co..... 68

Shelving—Hardware.
American Bolt & Screw Case Co.. 59

Shovels.
Avery Stamping Co..... 60
Star Shovel & Range Co 12

Sifters.
Hill Dryer Co..... 64
Stuber & Kuck..... 68

Skylight Gearing.
H. Weiss & Co..... 58

Slates and Slaters' Tools.
E. J. Johnson & Co. 57

Soldering Irons.
Emmelmann Bros. Mfg. Co 55

Squares, Machinists'.
Henry Disston & Sons..... 66
Stanley Rule & Level Co..... 65

Stampings—Sheet Metal.
Globe Machine & Stamping Co.... 58

Staples.
Titchener & Co 59

Steel Ranges.
Beckwith, Estate of P. D..... 24
Bergstrom Bros. & Co..... 23
Chicago Stove Works.....8-13
Farwell, Ozmun, Kirk & Co..... 65
Gem City Stove Co..... 9
Globe Stove & Range Co 6
Home Pride Range Co..... 8
Joliet Stove Works..... 7
John Kontny.....18-19
Pittsburgh Stove & Range Co..... 2
Portsmouth Stove and Range Co. 16
Ringen Stove Co..... 4
Star Shovel & Range Co..... 12
John Van Range Co..... 11

Stoves.
Beckwith, Estate of P. D..... 24
Bergstrom Bros. & Co..... 23
Chicago Stove Works.....8-13
Farwell, Ozmun, Kirk & Co..... 65
Gem City Stove Co..... 9
Globe Stove & Range Co 6
Joliet Stove Works 7
John Kontny.....18-19
March-Brownback Stove Co 16
Marion Stove Co 13
Pittsburgh Stove & Range Co 2
Portsmouth Stove & Range Co.... 16
Smith & Anthony Co..... 13
Star Shovel & Range Co..... 12

Stoves—Gas.
National Enameling & Stamping Co..... 11
Pittsburgh Stove & Range Co..... 2
Schneider & Trenkamp 5
Silver & Co 59

Stoves—Gasoline.
Ringen Stove Co..... 4
Schneider & Trenkamp..... 5

Stoves—Oil.
National Enameling & Stamping Co 11
Ringen Stove Co 4
Silver & Co..... 59
Taylor & Boggis Fdy. Co..... 62

Stove Casters.
Kramer Bros. Fdy. Co 52

Stove Carriers.
Kramer Bros. Fdy. Co..... 52

Stove Cement.
Jos. Dixon Crucible Co..... 53

Stove Clay.
Bridgeport Crucible Co..... 53
Williams Stove Lining Co..... 53

Stove Linings.
Williams Stove Lining Co..... 53

Stove Mats.
Stuber & Kuck 68

Stove Patterns.
Geo. W. Cope, Pattern Works.... 52
Mansfield Stove Pattern Works .. 52
Quincy Pattern Co..... 52
Vedder Pattern Works..... 52
Weller Pattern Co 52

Stove Polish.
Nickel Plate Stove Polish Co..... 1
Sterling Stove Polish Co 53

Stove Repairs.
American Stove Repair Wks 52
A. G Brauer..... 52
Wm. T. Dust Co..... 52
Great Western Stove Repair Co.. 52
Kramer Bros. Fdy. Co 52
J. L. Morris Stove Repair Co..... 52

Sugar Kettles.
Sperry & Co..... 59

Tapes
Lufkin Rule Co..... 64

Telescopes.
J. Stevens Arms & Tool co..... 68

Tinners' Furnaces.
Burgess Soldering Furnace Co.... 55
Clayton & Lambert Mfg. Co..... 55
Geo. W. Diener Mfg. Co 55

Tinplate.
American Sheet & Tin Plate Co... 56
Berger Mfg. Co 56
Canton Steel Roofing Co..... 57
J. H. Eller & Co..... 57
Garry Iron & Steel Co..... 54
Illinois Roofing & Supply Co..... 68
Lee-Glass-Andreesen Hdw. Co.... 67
McClure Co..... 68
Merchant & Co..... 54
Stockhoff Supply Co..... 68

Tinware.
National Enam. & Stamping Co.. 11
Stuber & Kuck 68
Vollrath Mfg. Co..... 10

Toilet Paper Holders.
Franklin Specialty Co..... 59

Traps—Steel.
Oneida Community..... 1

Trowels.
Avery Stamping Co 60
H. Disston & Sons..... 66

Tubing.
Benedict & Burnham Brass and Copper Co 54

Ventilators.
Friedley & Voshardt 57
Globe Ventilator Co..... 68
Iwan Bros 56
Kramer Bros. Fdy. Co..... 52
Merchant & Co. 54
Powers Bros..... 68

Washing Machines.
Benbow-Brammer Mfg. Co..... 60
H. F. Brammer Mfg. Co..... 61
Clark, Quien & Morse..... 61
J. H. Crammond..... 60
Quincy Washing Machine Co 61
United States Washing Machine Co..... 61
White Lily Washer Co 61

Window Fasteners.
Safety Window Lock & Ventilator Co..... 63

Wire Goods.
Denning Fence Words..... 59
Titchener & Co 59

Wrenches.
Hawkeye Wrench Co 59
Hurwood Mfg. Co..... 64

Wringers—Mop.
M. Kavel & Co 59

Trade Report.

CHICAGO IRON MARKET.

In defiance of precedent, the iron markets in general are not suffering from the December dullness, which usually accompanies the holiday season and the inventory period. Some markets, notably the pig iron, show a decided lull, which may be attributed to these causes, but rails, billets, bars, sheets and most other finished products are going forward in good shape. Plates and structural materials have been comparatively quiet for the last ten days, but a large tonnage has already been placed and a great deal more will be forthcoming after the holidays. At a meeting of the plate association held Wednesday an advance of $2 a ton was made on widths from 14 inches to 24 inches. This increase in prices has stimulated buying, and the mills in the West will have all they can attend to during the next few months.

The steel rail market was the cynosure of all eyes during the past week. Prices on this product were reaffirmed two weeks ago at $28 a ton, the rate which has prevailed since 1902. Since this confirmation railroads have bought heavily not only of rails, spikes, bolts, splices, etc., but of cars, bridges and other equipment. This is regarded by wiseacres as the healthiest sign of the times and is having a decidedly bullish effect in all kindred markets. Railroads are ordinarily the largest consumers, but for the past eighteen months have bought hardly anything. The inaction on the part of railroads during this period is considered by many to have been the primary cause for the inordinate depression which iron and steel have been suffering.

Harmonious co-operation and good feeling, the normal concomitant of prosperity, prevails between manufacturers in all lines. Pools and independents are selling at the same prices in every market and not the slightest tendency towards shading has been manifested. This feeling is cited by the bulls as an evidence of the material soundness of present prices.

There is little change in the coke situation, but indications continue to point to a shortage rather than a surplus throughout the winter months. Certain it is, with the number of additional furnaces now going into blast, that there will not be, at best, more than enough coke to go around. The question of an increased output in the Connellsville district depends entirely upon the weather and a relief from the continued drought.

PIG IRON.

At the meeting of the newly formed Eastern Pig Iron Association this week, it developed that practically all the furnaces represented had their product sold ahead from three to four months and had little or no stocks on hand. This is apparently typical of the furnace situation throughout the country. The demand for spot iron seems to be growing, and only a few furnaces are in position to make prompt sales or anticipate shipments on old orders. The total tonnage placed during the week under review was rather light, but such inaction is entirely seasonable and cannot be considered as ominously significant. Such orders as were placed were for immediate delivery and no large contracts were booked. Producers seem to be as stiff as ever in their ideas of prices. They seem to be afraid of over-selling rather than losing orders. A few buyers, apparently trying to force the situation, are now beginning to talk about purchases for the second half of 1905, but are finding difficulty in getting producers to make quotations.

The coke situation is becoming daily more serious. The drought in the Connellsville regions is unprecedented, and the railroads are compelled to haul water long distances by train for use in their own locomotives and shops. The car shortage is also becoming more marked, and even the few coke operators fortunate enough to have a good water supply cannot get their product shipped. With the possibility of a continued fuel shortage confronting them, furnacemen find it impossible to predict what pig iron will cost to manufacture after the first of the year, and the few producers that have an apparent surplus to sell are reluctant to quote ahead.

Northern irons were subjected to another advance during the week. Foundry No. 2 is quoted at not less than $17. At this price, Northern interests are getting all of the small amount of new business now on foot, as Southern irons are quoted at $17.15—an advance of 15c over their Northern competitors. However, it is not expected that any new buying streak will develop until after the new year is well started.

Reports from foundrymen are being awaited anxiously, as from these sources may be determined to some extent the real strength of the situation. So far as can be judged, foundrymen seem to be getting slightly better prices than three months ago, but no great premiums are asked or received. The demand for castings is only fairly strong and the prospects for a very heavy demand in the future are not very bright. An average demand at good prices fairly represents the consumers' attitude.

OLD MATERIAL.

Heavy falls of snow all over the country buried great quantities of scrap during the last week, rendering them unavailable for sale until next spring. This fact, coupled with the pig iron advances, brought about by the heavy buying of the United States Steel Corporation, has served to strengthen a weak market. Present symptoms seem to indicate that present prices will be maintained for a time at least. Prices declined during the latter part of last week only to rebound Monday and Tuesday to the present status. Railroads sold heavily, getting very favorable terms.

Old iron rails, $22 to $22.50; old steel rails, 4 feet and over, $16 to $16.50; old steel rails, less than 4

feet, $15.50 to $16; heavy relaying rails, subject to inspection, $22 to $22.50; heavy relaying rails, for side tracks, $20 to $20.50; old car wheels, $16.50 to $17; heavy melting steel scrap, $14.25 to $14.75; frogs, switches and guards, $14.25 to $14.75; mixed steel, $10 to $10.50.

The following quotations are per net ton: Iron fish plates, $19.50 to $20; iron car axles, $22.50 to $23; steel car axles, $17 to $17.50; No. 1 railroad wrought, $17.75 to $18.25; No. 2 railroad wrought, $16.75 to $17.25; shafting, $17.50 to $18; No. 1 dealers' forge, $14 to $14.50; wrought pipes and flues, $13.25 to $13.75; iron axle turnings, $12 to $12.50; soft steel axle turnings, $12 to $12.50; machine shop turnings, $11.25 to $11.75; cast borings, $8.50 to $9; mixed borings, etc., $8.50 to $9; No. 1 mill, $9.50 to $10; country sheet, $8.50 to $9; No. 1 boilers, cut to sheets and rings, $13 to $13.50; No. 1 cast scrap, $14.25 to $14.75; stove plate and light cast scrap, $12 to $12.50; railroad malleable, $13.75 to $14.25; agricultural malleable, $12.50 to $13.

SHEETS.

Demand shows no cessation and in accordance with an advance of $2 a ton announced Dec. 8 by mills, local jobbers advanced prices 10c per 100 pounds on galvanized iron. The Inland Steel Co. will reopen its mill within the next four weeks.

Jobbers quote as follows, per 100 lbs.: Black sheet steel, No. 16, $2.40; Nos. 18 and 20, $2.45; Nos. 22 and 24, $2.50; Nos. 25 and 26, $2.55; No. 27, $2.60; No. 28, $2.70; No. 29, $2.90. Polished sheet steel, No. 24, $4.85; No. 26, $4.95; No. 27, $5.05; No. 28, $5.15. Wood's smooth steel, No. 15-17, $2.85; No. 18, $2.95; No. 20, $2.80; No. 22-24, $2.90; No. 25-26, $3.00; No. 27, $3.10; No. 28, $3.20. Galvanized iron, regular sizes: No. 16, $2.95; Nos. 18 and 20, $3.10; Nos. 22 and 24, $3.25; No. 26, $3.45; No. 27, $3.65; No. 28, $3.85; No. 20, $4.75; Nos. 22 and 24x36 inch, $3.45; No. 26x36 inch, $3.65; No. 27x36 inch, $3.85; No. 28x36 inch, $4.05.

CHICAGO HARDWARE SCRAPS.

Business is experiencing none of the usual pre-inventory dullness so often attendant upon the holiday season. Builders' hardware is selling more easily than ever owing to the splendid outlook for 1905. Manufacturers report that orders are coming in perhaps better than for the last two or three months, though the fall season is normally the best during the year. Retailers report that the holiday demand was quite up to the average and notably for the better class of goods. Christmas buying will not amount to the enormous total of a year ago, but reports indicate that dealers did, on the whole, enjoy a very comfortable demand.

As a general thing, prices continue to show an advancing tendency. No great upward movement is apparent, however, and though the changes are numerous, as is customary at this time of the year, prices seem to be fluctuating rather than advancing. Mounted grindstones are quoted as follows: ball-bearing, each, No. 1, $3.15; No. 2, $3.00; No. 3, $2.85. Common bearing, each, No. 1, $3.00; No. 2, $2.80; No. 3, $2.65. Alligator wrenches are discounted at 70 and 10 per cent; Always Ready, 50 per cent, and Girard's Agricultural, 75 and 5 per cent.

Sash weights took their last advance in price very well and there is talk of another in the near future. There is some scarcity of material. One of the Binghampton scale manufacturers announced an advance, owing to increased cost of raw products. We have not as yet heard from the Osgood Scale Co.

Cast iron ware was advanced by manufacturers, but no changes were made on white enameled, covered or other ware. The market on these latter products is very strong, however, and advances are in order. Tacks and tarred roofing paper are liable to changes—the former in an upward direction and the latter down. Spirits of turpentine and linseed oil are exhibiting great strength and price advances will probably occur within the next few days.

A 10 per cent advance in registers was announced by manufacturers Dec. 5. The discount is given as 75 per cent.

PIG TIN.

Lower prices on pig tin will probably be quoted for next year, as the notable "squeeze," so much in evidence for the last four weeks in London, collapsed on Tuesday, and prices declined £4 per ton. Prices in New York declined, but in Chicago manufacturers are quoting 1c higher than a week ago. There is no great demand and, moreover, no prospects of a betterment in the near future. Consumers are not in need of any great shipments just at present and the arrival of 900 tons of tin last week relieved the temporary pressure. Local jobbers quote Banca pigs at from 35c to 35½c per pound. Straits are 35c and Straits in bars 37c.

COPPER.

Copper is dull and the demand nil. London shows very little action. Prices are unchanged, but favor sharp reductions. It is evident that the "inexhaustible demand" of last month was quite easily satiated. Chicago jobbers continue to quote at 21c base.

LEAD.

Prices on sheet lead have been widely fluctuating. One week ago they dropped 50c per 100 lbs. Since then they have been advanced and are now 75c higher. They are now quoted as follows to dealers: full coils, per 100 lbs., $7.00; cut rolls, $7.25.

OLD METALS.

Prices for old metals are holding up well and there is a fair demand. Dealers' buying prices are about as follows: Heavy cut copper, $13.25; copper wire, $12.75; light copper, $11.75; No. 1 composition, $11.25; heavy brass, $8.25; light brass, $6.75; No. 1 yellow brass turnings, $8.50; No. 1 composition turnings, $10.00; heavy lead, $4.25; tea lead, $3.90; joints, $6.85; zinc scrap, $4.00; No. 1 pewter, $20.00; block tin pipe, $26.50.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	6 75
IX	14x20	8 00
IXX	14x20	9 20
IXXX	14x20	11 60
IXXXX	14x20	13 85
IC	20x28	13 50
IX	20x28	16 00
IXX	20x28	18 40
IXXXX	20x28	20 80
IXXXXX	20x28	23 20

COKE PLATES.

Cokes, 180 lbs	IC	20x28	8 50
Cokes, 200 lbs	IC	20x28	8 80
Cokes, 216 lbs	IC	20x28	9 10
Cokes, 216 lbs	IX	20x28	11 10

PIG IRON.

Lake Sup. Charcoal	18 00
Local Coke Fdy No. 1	17 50
Local Coke Fdy No. 2	17 00
Local Coke Fdy No. 3	16 50
Local Scotch Fdy No. 1	17 50
Ohio Strong Softeners, No. 1	19 30@ 19 80
Southern Coke No. 1	17 65
Southern Coke No. 2	17 15
Southern Coke No. 3	16 65
Southern Coke No. 4	16 15
Southern No. 1 Soft	17 65
Southern No. 2 Soft	17 15
Alabama Car Wheel	19 65
Malleable Bessemer	17 50
Jackson Co. Silvery	19 50@ 21 30
Southern Silvery	18 15@ 18 65

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 40
No. 18-20	per 100 lbs.	2 45
No. 22-24	per 100 lbs.	2 50
No. 25-26	per 100 lbs.	2 55
No. 27	per 100 lbs.	60
No. 28	per 100 lbs.	70
No. 29	per 100 lbs.	80

POLISHED SHEET STEEL.

No. 24 per 100 lbs.	$4.
No. 26 " "	$4.95
No. 27 " "	$5.05
No. 28 " "	$5.15

SMOOTH STEEL.

Wood's Smooth	No. 15-17	2 85
" "	No. 18	2 95
" "	No. 20	2 80
" "	No. 22-24	2 90
" "	No. 25-26	3 00
" "	No. 27	3 10
" "	No. 28	3 20

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

Regular Sizes.

No. 16 per 100 lbs.	$2 95
Nos. 18 & 20, per 100 lbs.	3 10
Nos. 22 & 24, per 100 lbs.	3 25
No. 26, per 100 lbs	3 45
No. 27, per 100 lbs	3 65
No. 28, per 100 lbs	3 85
No. 30, per 100 lbs	4 75
Nos. 22 & 24 x 36 in., per 100 lbs.	3 45
No. 26 x 36 in., per 100 lbs	3 65
No. 27 x 36 in., per 100 lbs	3 85
No. 28 x 36 in., per 100 lbs	4 05

SOLDER.

XXX Guaranteed ¼&½	per lb. 20¼c
Commercial ¼&½	per lb. 19 c
No. 1 Plumbers	17¾c

SHEET ZINC.

600 lb. Casks	base. per cwt. $7 40
300 lb. Casks	per cwt. 7 60
Sheets	per cwt. 7.70

COPPER.

Copper	base. 21c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35¼c
Straits pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@4 62½c
Bar	6¾
National (White) brands in less than 100 lb. lots) per lb	7¼

Sheet.

Full coils per 100 lbs.	$7.00
Cut " " " "	7 25

HARDWARE.

ADZES.

Carpenters'.

Ajax	35&15%
Blood's	40&2½%
Hunt's	35%
White's	12½%
Coopers'.	
Barton's	20%
White's	15%
Ship.	
Ajax	33⅓%
Blood's	37½%
Hunt's	35%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.

F L Waterproof, 1-10s	40c
G D	35c
Eley's	53c
Cartridges.	
Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	35&3%
Peters Cent Fire, Military and Sporting Ctgs	15&8%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	$1 18
Peters Blank Ctgs. 32 cal., C. F.	4 40
Peters B B Caps, Round ball	$1 44
Peters B B Caps, Conical ball	$1 85
Winchester Cent. Fire, Military and Sporting Ctgs	15&8%
U. M. C. B B Caps, Con. Ball	$1 85 net
U. M. C. Rim Fire Shot Ctgs	50&15&3%
U. M. C. Cent. " " "	35&15&3%
Primers.	
Berdan Primers	$1 00
Peters Primers	1 30
Winchester Primers	1 30
Shells.	
Peters Empty Paper Shells, 10 and 12 gauge. League	25&2%
Peters Empty Paper Shells, 16 gauge. League	20&2%
Peters New Victor Nitro Shls	20&2%
Ideal	25&7%
Peters Loaded Shells. League and Referee Semi-Smokeless	40&1%
Peters New Victor Loaded Shells with King's Smokeless	40&5%
Ideals Loaded with King's Smokeless	40&10&10&1%
Winchester Blue Rivals	40&1%
Winchester Yellow Rivals	40&1%
Winchester Repeater	20&2%
Winchester Leader	40&5%
U. M. C. Loaded Shells, Black Powder	40&1% full cases
Winchester Loaded Shells, Black Powder	40&1% full cases
Gun Wads—per 1,000.	
Peters Gun Wads	18%
U. M. C. Gun Wads	18%

Powder.		Each
King's Smokeless, kegs		$11 30
" "	½ kegs	5 80
" "	¼ kegs	2 97
" "	1-lb. cans	51
" "	1-lb. " rifle	70
Dupont's "	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs	2 97
" "	1-lb. cans	51

Shot.

Dropshot, sizes smaller than B. 25-lb. bags, per bag	$1 65
Drop shot, B and larger sizes, 25-lb. bags, per bag	1 90
Buck Shot, 25-lb. bags, per bag	1 90
Chilled Shot, 25-lb. bags, per bag	1 90

ANCHORS.

Expansion Screw Anchors	10%

ANVILS.

Trenton, 70 to 80 lbs	9¾c per lb
Trenton, 81 to 150 lbs	9c per lb

AUGERS.

Boring Machine	60&10&5%
Irwin's	40&10%
Carpenters' Nut	60&10&5%
Hollow: Ives' New Pattern	25%
Bonney's—list $30.00	75&5%
Stearn's, No. 1 dos.	$42 00
Stearn's, No. 3 "	33 50
Post Hole.	
Dalbey, 8-inch per doz.	$ 5 75
Digwell, 8-inch "	13 00
Howe's, 6 and 8-inch "	11 00
Iwan's Improved	40 & 5%
Vaughan's, 4 to 9-inch per doz.	6 50
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or without screw	40-5%
Snell's " " "	40-5%

AWLS.

Brad, handled per doz.	$0 28
shouldered, ass'd, 1 to 4 per gr.	95
patent, asst'd, 1 to 4 "	90
Harness, common "	1 10
patent "	90
Peg, shouldered "	95
patent "	40
Scratch, No. 2, handled "	4 40
No. 1, socket handled per doz.	1 15
No. 20 Hurwood "	2 00
Sewing, common per gr.	90
patent "	90

AXES.

Boys' Handled:	
Camp Fire, 3-lb., per doz	$6 00
" " 4-lb., freighters', per doz	7 85
Cast Steel, good grade, pr. dz.	5 80
Pioneer, per doz	7 00
Broad:	
Peerless	40&5%
Red Warrior, per doz	$27 00
Firemen's, per doz	1 50
Handled:	
Gladstone, 3 to 4 lbs, per doz.	$11 25
Hunt's " " "	9 50
Lippincott's " " "	9 50
Pioneer " " "	10 25
U. S. A. " " "	13 50
Valley Forge " " "	9 50
Maricopa " " "	8 25
Single Bitted (without handles)	
Gladstone, per doz 3 to 4 lbs	$8 50
Hubbard's conc. " "	7 00
Hunt's " "	7 00
Lippincott's " "	7 00
Mann's " "	7 00
Pioneer " "	7 50
U. S. A. " "	9 00
Valley Forge " "	7 00
Second Quality " "	7 00
Maricopa " "	6 25
Double Bitted (without handles):	
Lippincott's to 4 lbs per doz	$9 00
Mann's " " "	9 00
Pioneer " " "	9 50
U. S. A. " " "	11 25
Valley Forge " " "	9 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50
4½ 5½ lb. advance 75c.

BALANCES, PRING.

Fraser	50%
Pelo	20%

BAGS, PAPER NAIL.

Pounds..	3	5	10	16	30	25
Per 1,000.	$1 60	1 85	2 60	3	3 90	4 75

BARS, CROW

Pinch or Wedge Point wt. $3 95

BASKETS.

Clothes.	
Small Willow per doz.	$6 00
Medium " " " "	6 75
Large " " " "	7 75
Galvanized Iron— ½ Bu 1 Bu 1½ Bu	
Per Doz $4 00 5 50	7 00

BEAMS—SCALE.

P. S. & W Co	40%

BEATERS.

Carpet, Rattan per doz	$2 40
Raymond's Steel Wire, " "	80
Woven Wire, No. 4 " "	1 10

Egg.	Gro.
No. 60 Improved Dover	$ 6 00
No. 75 Improved Dover	6 50
No. 100 Improved Dover	7 00
No. 102 Improved Dover Tin'd.	8 50
No 150 Improved Dover, Hotel	15 00
No. 152 Improved Dover, Hotel Tin'd	17 00
No. 200 Imp'd Dover Tumbler	8 50
No. 202 Imp'd Dover Tumbler Tin'd	9 50
No. 300 Imp'd Dover Mammoth, per doz	25 00

BELLOWS.

Blacksmiths'	70&5%
Hand, 8 in. per doz.	$ 6 85
10 in. "	8 40
Molders', 12 in. per doz.	13 00

BELLS.

Call.	
2¾ in. nickeled bell, per doz.	$ 1 35
2¾ in. " brass bell "	3 60
3 in. " " " "	7 50
3 in. " silver alloy bell, per doz.	16 50
4½ in. " brass bell and base per doz	14 50
Cow.	
Ordinary Goods	70&5%
High Grade	60&10%
Jersey	70&10%
Door.	
Bigelow Automatic per doz.	$9 50
Rotary.	
3 in. bronzed iron bell "	5 25
3 in. nickeled " " "	7 50
3½ in. " " " "	9 00
Hand.	
Hand Bells, Polished	60@60&10%
White Metal	50%
Nickel Plated	40%
Swiss	60&5%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, Steel, Alloy,	60, 10 & 5%
Farm, lbs.. 40 50 75 100 Each.	$1 10 $1 30 $1 85 $2 65

BEVELS—TEE.

Stanley's, rosewood handle, new list	40&5%
Stanley's Iron handle	40&'

BIBB

BINDING—OIL CLOTH.

Zinc	75, & 10%
Brass	75%
Brass Plated	75 & 10%

Auger. BITS.

Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's	40&5%
Ford's Ship	40&5%
Irwin	40&5%
New Jenning's	50, 10&10%
Russell Jenning's	35&10%
Clark's Expansive	6 %
Steer's " Small list $22 00	30%
" Large " $36 00	30%
Irwin Car	45%
Snell's Car	60&5%
" Ship	40&5%
Ford's " Auger Pattern Car	40&5%
Center	40&10%
Countersink—	
Wheeler's per doz.	$1 30
American Snail Head "	0 70
" Rose " "	0 80
" Flat "	0 70
Buck Bros'. Flat "	2 60
German "	0 70
Dowel, New Jennings	40&10%
Gimlet—	
Standard Double Cut	50&5@50&10%
German Pattern per doz.	90 48
Gouge "	0 80
Spoon "	0 80
Countersink "	1 30
Reamer—	
Buck Bros.' ½ Round. "	2 75
" " Square "	3 50
Standard ½ Round "	0 75
" Square "	0 75
German Octagon "	0 75
Screw Driver—	
Round Shank "	0 48
" " extra quality "	1 40
Square Shank "	1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—	
Standard ¾ & 1¼in	60&5%
Clock Spring	60&5%
Star	30%
Hack—	
Disston's	35&5%
Griffin's	35&5%
Star	30%
Wood—	
Jackson's per doz.	$3 25
Disston's—No. 6, 16, 26 & 045,	$4 20
No. 11, $6.30.	
W. M. & Co.'s No. 20 per doz.	$5 50

Snatch— BLOCKS.

Wooden	55&10%
Steel	40&10%
Tackle—	
Wooden	70&5%
Steel	50, 10&5%

BOARDS.

Stove	40%
Wash—	
Anchor per doz.	$1 60
Globe "	2 10
Banner "	2 60
Crystal "	3 15
Brass King "	3 15
Nickel Plate "	3 15
Enamel King "	3 15

BOBS—PLUMB

Carpenters', 8½ oz. iron pr dz.	$0 65
1½ lb. " " "	1 60
2¾ lb. " " "	1 80
13 oz. lead "	3 00
6½ oz. brass "	3 30
Mason's 3 lb. lead "	4 00

BOLTS.

Carriage, Machine, Etc.	
Carriage, ⅜x6 and sizes smaller and shorter	75&2½%
Carriage, sizes larger and longer than ⅜x6	70&10%
Machine, ⅜x4 and sizes smaller and shorter	75&2½%
Machine, sizes larger and longer than ⅜x4	70&10%
Elevator	50-10&5%
Plow	60&10%
Stove	80%
Tire	72½&5%
Wagon Box Strap	70&10%
Mortise Door—	
Gem	60-10&5%
Ives'	50&10%
Barrel—	
Cast	50%
Wrought	50&5%
" Bronzed	75&5%
Flush, Wrought, B. K.	40&5%
Spring—	
Wrought	75&10%
" Brass	75&10%
Square—	
Cast	40%
Wrought	60-10&10%
Tire	72&2½%

BORERS.

Angular, Miller's Falls, per doz	$13 75
Bung, Common Ring with Handle—	
Iron 1½ 1¾	3
Pair $6 00 6 50	8 1

BORERS—CONTINUED.
Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each....25-10&5%

BOXES.
Nail, No.......... 5 10 20
Per doz.........$3 65 10 50 12 00
Mitre—
New Langdon................15&5%
Olmsted's.....................15%
Stanley's.....................20%
Seavey's..............per doz 8 00
Twine, Nos... 20 30 25 121
Per doz $1 50

BRACES.
Common Ball..............$1 35@1 45
Barbers' Pattern..............50,10&5%
Fray's Gen. Spofford's..........50&10%
" No. 66 to 146........50&10&7½%
P. S. & W. Co.'s Peck's Adjustable......................50-10&5%

BRACKETS.
Hay-Rack, Wenzelmann's No. 1, $12.60; No. 2, $13.20 per doz.
Shelf—
Cast Iron, Japanned......50, 10, 10%
Stanley's Wrought Steel....... ....70-10&2½%
Wire.......................75-10&5%

BROILERS.
Wire ....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.
Pump Rubber—
Wychoff...............per gr. $4 75
Cooper.............. " 5 50
Champion .... " 7 50
Victor .... " 9 50
Star................ " 5 00
IXL................. " 6 75
Well—
Galv'd Qts...... 10 12 14
Per doz $2 75 3 00 3 25
Wooden, top ear, plain, per doz 3 60
" " swivel " 4 85
" side-strap, plain " 3 70
" " swivel " 5 00

BUCKS, SAW.
Folding..................per doz $2 10

BURS, RIVETING.
Copper Burs Only............35-10&5%
Tinners' Iron Burs Only...........70%

BUTTS.
Cast-Iron......................65&10%
Wrought Brass.....................20%
Wrought Steel Bright—
Nos. 800, 804, 808, 810, 814 and 834 ....75&10%
Nos. 838, 840 and 842 .....75-10&10%
Nos. 828 and 823..........80-20&10%
Wrought Steel, Japanned—
Nos. 731 and 727.........70&10&10%

CALIPERS.
Double ....40&10%
Inside and Outside.............40&10%
Wing...........................40&5%

CALKS.
Logger's Boot, (Lufkin R. Co's.) ....per M $3 65
Toe.
Shoenberger............per lb. 5c
Bessemer.............. " 5½c
American.............. " 7½c
Swedes................ " 8½c

CANS.
Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$3 40 $3 45 $3 70 $4 90
Milk
Elgin Pattern,
Nos...... 808, 810, 88.
Gal. 8 10 8
per doz....$21.50 $24.50 $22.10
New Elgin Pattern,
Nos. 105 108 110
Gal. each, 5 8 10
Per doz., $16.75 $18.50 $19.85
Iowa Pattern.
Nos. 608 610
Gal. 8 10
Per doz $20.50 $21.50
New York Pattern,
Nos. 908, 910,
Gal. each, 8 10
Per doz. $25.15 $26.95
Oil and Gasoline—
1 Gal. glass, Daisy....per doz. $1 95
1 " cushioned " 3 15
Star, gals...... 1 2 3
Per doz........ $1 35 $2 30 $3 15
Per doz.
Sterling Tilting....5 gallon... $8 00
"High C" Pump...5 " ... 12 00
E[illegible] Pump.....5 " ... 9 25
W[illegible]cket..............50-10&10%

CAPS—GUN.
See Ammunition.

CARRIERS.
Hay—
Myers' Imperial.........each $3 50
" Clover Leaf...... " 3 50

CARTRIDGES.
See Ammunition.

CASTERS.
Acme—Ball Bearing.............35%
Bed........................60, 10&5%
Common Plate—
Brass wheel..................60&10%
Iron and porcelain wheel.60, 10&5%
Philadelphia Plate.............70&5%
Martin's......................50&10%
Payson's......................70&10%
Tucker's—Wood & iron wheel..25&5%
" Rubber wheel........ 15%

CATCHERS—GRASS
Lieder's No. 1...... ...per doz. $6 25
Eureka.............. " 4 25
Ideal No. 50

CHAIN AND CHAINS.
Breast Chains—
Doubleslack.........doz. pairs $5 75
With Covert snaps " 5 00
" slide......... " 3 25
Without slide..... " 2 85
Bright Ox Chains—
5-16in. $5 65: ⅜in. $5 40 pe .00 lbs.
Cable Coil Chain—
Inch.... ... 3-16 ¼ 5-16 ⅜
Per 100 lbs....$8 75 $6 15 $5 00 $4 25
Inch .... 7-16 ½ ⅝ ¾
Per 100 lbs....$4 05 $3 90 $3 80 $3 70
Inch .... ⅞ 1 1¼
Per 100 lbs.... $3 60 $3 60 $3 60
Cable Log Chain—Advance 35c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle...........50&5%
" toggle and snap...50&5%
" open and closed ring..........................50&5%
Halter Chains—
American, new list...........33⅓%
German.....................60-10&5%
Niagara, new list...............40&5
Triumph " 30%
Picture Chains—
Light Brass, 3 ft.......per doz. 63c
Heavy " 3 " .... " 75c
Pump Chain—Galvanized per 100 lbs........................ $4 75
Safety Chain—Brass..........60&10%
Special Steel Loading Chain—
Inch ¼ 9-32 5-16
Per 100 lbs......$16 00 $13 50 $12 50
Stretcher Chains—
5-16 in., $8.50—⅜in., $7.75 per 100 lbs.
Tie-Out Chains—Browns......70&10%
Trace Chains—Western Standard—
6½— 6-2.................per pair 37c
6½— 8-2................. " 31c
6½— 8-3................. " 30c
6½—10-2................. " 35c
7 — 8-2................. " 35c
7 —10-3................. " 39c
7 —10-1................. " 44c
7 —10-0................. " 55c
Add 2c per pair for Hooks.
" 2c " for Twist Link
Wagon Stay Chains—
Inch ¼ 5-16 ⅜
Per 100 lbs. $6.50 $6.00 $5.50

CHALK-CARPENTERS'.
Blue.................per gross 58c
Red................. " 48c
White............... " 38c
Common White Sch'l Crayon............ " 5½c

CHARCOAL.
In barrels ....per bu. 21c

CHECKS-DOOR.
Blount 30%
Blum-Jap'd, $6.25; Brzd., doz.... $7.00
Columbia.....................50, 10&5%

CHIMNEY TOPS.
Iwan's Volcano...................50%

CHISELS.
Box—
Inches............ 10 12 14
Round...per doz. $2.10 $2.25 $2.75
Flat.....per doz. 2.85 3.60 4.20
Cold—
Good quality......per lb 10@ 12c
U.S.A., extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's...................... 20%
P. S. & W. Co's................ 70%
For beveled back, add..per doz............................ 60c
Tanged, Firmer—
P. S. & W. Co's..............35&5%
With Handles add... per doz. 60c
Choppers, Enterprise Meat—
No. 12........................$2 75
No. 22........................ 4 50

CHUCKS-DRILL.
Standard Tool Co.'s 40%
Goodell's, for Goodell's Screw Drivers...............per doz. $6.25
Yankee, for Yankee Screw Drivers.......................... 5.00

CHURNS.
Anti-Bent Wood, Gal.. 5 7 10
Each $3.90 4.15 4.40
Belle, Barrel.................. 70&5%
Common Dash, Gal.... 4 5 6
Per doz.............. $7.75 8.50 10.50
Hero...........................70%
Union, Gal.......... 5 7 10
Each $2.65 2.90 4.75

CLAMPS
Adjustable—Martin's........... 40%
Carpenters'—Steel Bar......... 30%
Carriage Makers'—P. S. & W. Co.'s.........................40, 10&5%
Hose—
Sherman's, brass, ⅜ in., ... per doz. 32c
Double, brass, ⅜ in...per doz. 65c
Saw Filers—
Disston's list, $30.00.......... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's................... 40%

CLAWS-TACK.
Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle ....per doz. 80c
Solid Steel.............per doz. $1.60
Giant...................per doz. .60

CLEANERS.
Drain—
Iwan's Adjustable...............50%
Iwan's Stationary...............40%
Pot—Wire.............per doz. $0.45
Side-Walk—Steel.....per doz. 2.15

XLCR...........................65&5%

CLEAVERS.
Family—Ajax, In..... 6 7 8
Per doz $5.50 5.75 6.25

CLEVISES.
Malleable....................per lb. 3⅝c

CLIPPERS.
Bolt............................$1.90@4.75

CLIPS.
Axle.............................65&5%
Damper—
Standard ....per doz. $0.70
Troy .... " .38
Hame.................... " .30

CLOTH.
Emery—
Ajax.........................50&10%
B. & A..........................50%
Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 3.25
An extra charge is made for 50 ft. lengths, and a still further advance for smaller pieces.
Screen Wire—
12 mesh, painted, per 100 sq. ft. $1.25
14 " " " " 1.30

COCKS AND FAUCETS.
Compression Plain Bibbs..60-10-2½%
Lever Bibb Cocks 70%
Compression Hose Bibbs.......60-10%
Telegraph Faucets (new list)...50-5%
Racking Cocks (new list) 70-5%
Compression Lock C'ks(n'w list)70-5%
No. 65 Brass Liquor Cocks, doz. $9.15
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz.....$0.85
Milk Can Faucets, per doz., $2.60-4.20
Petroleum Faucets (new list)....70%

COFFEE MILLS.
Enter. Mfg. Co., list Jan 17, '93...25%
Parker's.......................50%
Arcade.......................60&10%

COLLARS—STOVE PIPE.
Inches 5 6 7
Plain Tin....per gr. $2.50 $2.80 $3.75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass " 3.30 3.60 4.80

COMBS—CURRY.
Nos. 000 20 321 330 417 416
Per doz. $0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 530 535 545 300
Per doz. $0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.
Carpenter's.................... 70%
Pencil—Faber's..........per doz. $1.00

CONDUCTOR PIPE.
Priced according to source of order, different prices being quoted for each locality.

COPPER—SEE METALS.

COPPERS.
Soldering—1 to 2 lb.....per lb. 24@29c
3 lb. and larger..... " 21c

CORD.
Picture—White Wire—List October 1900..........................80&10%
Sash—
Baltic Braided Flax...per lb. 20 c
SilverLake, white 7-32 in., 29 c
" " " 8-32 in., 29 c

CORKSCREWS.
Humason & Beckley...............33⅓%
Walker's........................33⅓%
Williamson's Regular.............50%
Williamson's Forged Worm.......50%

COTTERS—SPRING.
All sizes—new list........... 90&10%

COUPLINGS—HOSE.
Brass ....per doz. $1.00
Brass Plated........... " 85

COVERS, WAGON—SEE TENTS.

CRADLES—GRAIN.
Morgan's Grapevine...per doz. $22 25

CRAYONS—SEE CHALK.

CROW BARS.
Pinch or Wedge Point, per 100 lbs.......................... $3 40

CUTTERS.
Meat—
Enterprise Nos. 5, 10, 12, 22, 32, and 42............................25%
No. 100, list, $18.00............40&10%
Nos. 3 and 4.....................35%
Ideal....................per doz. $9.75
Universal....No. 1 2 3
Per doz.............$10.75 $13.00 $18.00
Pipe—Stanwoods No. 1 2 3
Each...............$ .85 1.50 4.00
Slaw and Crout—
3-knife Crout...........per doz. $0.75
1 " Slaw............ " 1.65
2 " " .... " 2.25
Washer.................... " 7.75

DAMPERS—STOVE PIPE.
Standard........................50&10%
American........................40&10%

DIES—STOCKS AND
Discount.........................40&10%

DIGGERS.
Post Hole—
Acme................per doz. $8.75
Atlas...............per doz. 7.75
Eagle ....per doz. 6.50
Eureka..............per doz. 6.25
Hercules............per doz. 9.75
Iwan's Split Handle..per doz. $8.00
Iwan's Perfection....per doz. 8.00
Ryan's...............per doz. 17.00

DIGGERS—POST HOLE.
Atlas ....per doz. $8.50
Eagle................... " 6.25
Eureka.................. " 6.50
Hercules .... " 10.25
Ryan's.................. " 17.00
See also Augers—Post Hole.

DOORS—SCREEN.
⅞ in. 4 panel painted per doz. $ 6.85
1⅛ " " " " 7.50
1⅛ in. 3 panel natural pine, fancy............per doz.. 11.50

DOOR HANGERS—BARN.
Single Flange, D. B. Rail, ...per 100 ft. 1 60
Novelty Check Back, ... 3 in 4 in 5 in 6 in
Per doz. pairs, $2.60 $3.90 $4.95 $6.25

DRILLS.
Bit Stock..................60% & 65&5%
Blacksmith's Twist................60%
Breast—
Common....................each, $2.25
Millers' Falls............ " 2.10
Hand—
Goodell's Automatic—per doz.
No. 01 No. 02 No. 3 No 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16.00
Millers' Falls " " " 12.75
" " Double " " 15.25
Reciprocating—
Goodells'............per doz. $16 50
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS—SCREW.
Hurwood ....40&10%
Standard.....................65&10%
Ajax.........................70&5%
Champion........................50%
" Pattern...........60,10&5%
Clark's Interchangeable.. .... 33⅓%
Edison...........................60%
Reed's Lightning.................50%
Goodell's Spiral..........50,10,5&2½%
Yankee Ratchet...................50%
" " Spiral.....50&10&5%

EAVES TROUGH.
Priced according to source of order, different prices being quoted for each locality.

ELBOWS.
Adjustable Stove—In. 5 6 7
Smooth....per doz. $0.95 0.95 1.40
Plan'd..... " 2.10 2.25 3.00
Corrugated Conductor—
5-inch......each 60c per doz. $7.20
6 " ...... " 70c " " 8.40
75% discount to dealers on 2-inch, 3-inch and 4-inch plain, round and round corrugated elbows.
Corrugated Stove—In. 5 6 7
Smooth.....per doz. $0.95 .95 1 40
Pol'd........ " 1.70 1.75 2.60
Plan'd...... " 2.60 2.65 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0.57 .60 .93
Pol'd....... " 1.00 1.05 1.50
Plan'd..... " 1.50 1.70 2.60

EMERY—TURKISH.
Size ....5 lb. pkgs. ¼ kegs, kegs.
No-60 to 150, per lb. 6¼c 4¾c 4⅛c
Flour...... " 5¼c 3¾c 3⅛c

ENAMEL—IRON.
English, ½-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.25
Peerless 1 50

EXTRACTORS—PIG.
See Forceps, Pig.

EYES.
Bright Wire Screw—See Goods, B.W.
Drifting Pick ....60&10%
Hooks and—
Brass.........................60&5%
Iron ....65&10%

FASTENERS, STORM SASH.
Moore's...................per doz. $0 80
Schroeder's............ " 1 50
Sensible................ " 1 10

FAUCETS—See Cocks.

FILES AND RASPS
Black Diamond..................70&10%
Disston's.......................75&10%

FORCEPS—PIG
Superior................ per doz. $4 75
Whisson's Imp 6 00

FORKS
These goods are sold net this year.
Barley—
Steel.........................70&2½%
Wood, 4 tines, per doz..........$5.25
Coal, Coke, Cottonseed............40%
Hay—
Diamond, 3 tine............ 50&10%
" 3 " 60%
" 4 " 70%
Golden Eagle, 3 tine 65%
" " 4 " .... 7[illegible]%
Digging................. 70&10%
Scoop.......................... 40%

FORKS—CONTINUED.

Header—
Diamond, 3 tine.....66⅔&5%
" 4 " .....65&10%
Manure—
Diamond, 4 tine.....60&18%
Golden Eagle.....70%
Ore.....40%
Spading—
Diamond .....70&10%
Golden Eagle.....70,11 &5%

Hack Saw— FRAMES
Crown.....per doz., $ 6 25
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM

Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 80 2 30
Qts..... 8 10 12 15
Each.....$2 95 3 80 4 50 5 20
White Mountain—
20 qt.—New platform, each...$19.10
25 qt.— " " " ... 22.60
35 qt. Sampson Power " ...42.00
40 qt. " " " ...57,00

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s ..20&10&2½%
Cream Pail, Fairmont, per doz..$3 75
Marking, Mortise, etc.....
.....50&10%@50&10&5%
Saw—Atkin's sgle. 55c, dbl. 80c pr doz.
Wire.
Disston's.....35%
P. S. & W. Co.'s.....20%

GIMLETS.

Discount.....35@40%

GLASS—WINDOW.

First three brackets..... 90&15%
Above " " ..... 90&10%

GLASSES—LEVEL.

Stanley R. & L. Co.....50&5%

GLUE.

Bulk.
B Amber .....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c
Liquid.
Eagle .....40 %
LePage's—
List "A".....37½%
List "B".....33⅓%
List "C".....25 %

GOODS.

Bright Wire.....90&5%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gr. $5.00
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 5.75
Wood Pails.
Frazer's, 15 lb. 75c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 53c, 25 lb. 88c each.
Tin Cans
Chamellene Graphite.
1 lb. per gross.....$ 9 50
3 lb. per gross..... 25 00
5 lb. per gross..... 37 00

GRIDDLES

Soapstone .....40&10%

GRINDSTONES

Family—In..... 7 8 9
Per doz $3 25 9 00 10 50
Loose.
Per ton .....$20 00@$21 00
Mounted—
Ball Bearing..... 1 2 3
Each $3 15 3 90 2 85
Common Bearing.. 1 2 3
Each $3 00 2 80 2 65

HAFTS—AWL

Brad—Common.....per doz., $0.18
Peg—
Common..... " 21
Patent, plain top..... " 46
" leather top .. " 52
Sewing—
Common..... " 21
Patent..... " 52

HALTERS

Jute Rope.....per dc $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED

Blacksmiths' Hand
Maydole's .....40&10%
Engineers'—
Maydole's .....40&10%
Farriers'.
Maydole's .....35&5%
Machinists'.
Maydole's .....40&10%
Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast.....per doz $1 10@$1 50
Maydole's .....30&7½%
Vulcan .....35&5%
Riveting.
Maydole's.....35&5%
Shoe.
Cast.....per doz 75c
Tack.
All Iron .....per doz $0 35
Pol'd Iron, Hickory hdl " 0 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine .....per doz $4 75

HAMMERS—HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....70&10%
5 lbs. and over .....75&5%
Masons'—
Single & Double Face.....70&10%
Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable.... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25
Axe.....50&10%
Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted .....per doz 24c
Coal Pick..... 50&10%
Drifting Pick..... ....50&10%
File, assorted 13c, large 16c per doz.
Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 55c@80c
Machinists'..... " 45c@70c
Hatchet.....per doz 45c
Hay and Manure Fork.....40&10%
Hoe and Rake .....40&5%
Saw, Plain 73c, Varnished 68c per dz.
Screw Driver, Assorted 42c, Large 48c per doz.
Shovel and Spade ..... .40%

Barn Door—HANGERS
King .....per doz. prs., $ 75
Monarch .....60&10%
"Never Jump" Hinge.....50&10%
Peerless, Loose Axle.....60&10%
Perfection, Roller Bearing..70&5%
Phœnix. Roller Bearing....70&5%
Prouty No. 315, per doz. prs., $6 35
Rival..... " " 3 65
Superb ..... " " 5 50
Safety Flexible " " 6 35
Wagner's Adjustable.....70@10%
Warehouse 60%
Conductor Pipe—
Iwan's Perfection.....50%
Parlor Door—
Acme.....per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Richards'.....40-10&5%
Eave Trough—
Baker's.....per gr., $2 35
Imperial 20%
Wire 35%

HASPS.

Hinge, Wrought.....70-10-10&10%
With Staples—See Staples.

HATCHETS.

Ajax 35%
Blood's.....40%
Cast Claw.....per doz $1 20@$1 45
Cast Shingling.... " $0 95 @ $1.20
Duffy's Barrel.....per doz 17 50
Germantown 40%
Hammond's 40%
Roger's Ideal.....per doz $5 75
Underhill's Star Lath.....40&10%
U. S. A.....25%

HAY RACK BRACKETS.

Wenzlemann's No. 1, per doz...$12 60
" No. 2, " ... 13 20

HINGES.

Blind.
Clark's Gravity, per doz sets....80c
Parker's..... .....65%
Shepherd's Noiseless, for Wood casing.... .....doz. $1 05

Gate.
Clark's, 1 2 3
Hgs & Latchs, dz.. $2 25 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only, " .. 0 70 0 75
Knuckle.....per doz prs $6 00
Lead's..... " sets 6 75
Superior ..... " prs 9 25
Spring.
American.....25%
Bommer Bros Ball B'g Floor ...35%
Bommer Bros Spring Hinges..40%
Chicago.....25&5%
Clover Leaf.....per gro $9
Columbia Dbl. Acting....40&10&5%
Gem 25%
Ideal Detachable,....per gro $12 00
New Idea ..... " 9 00
Oxford..... 40%
Wrought Iron.
Light Strap Hinges .80-5-10-10&10%
Heavy Strap H'g's80-20-10-10-10&10%
Light T Hinges...75-10-5-10-10&10%
Heavy T Hinges.....75-5-10-10&10%
Extra Heavy T H'g's80-20-10-10&10%
Cor. Heavy Strap80-20-10-10-10 5%
Cor. Ex. Heavy T 80-20-10-10-10&5%
Screw Hook and Strap.
6 to 12in.....per 100 lbs. $3.50
14 to 20in ..... " " 3.25
22 to 36in ..... " 3.00
Screw Hook and Eye.
⅝in ..... per 100 lbs. $8.25
⅜in ..... " " 7.25
⅛in ..... " 9.00

HOES.

Garden.....70&15%
Grub:
Ajax .....60, 10&5%
Extra..... .....70%
Hazel.....per doz $5 00
Ladies' and Boys'.....70&15%
Mortar.....75 &10%
Planter's Eye..... .....62½%
Weed ..... 7 &5%

And Eyes. HOOKS.
Brass .....50&10&5%
Iron..... .....65&10%
Awning.....per gro $1 50
Belt
Brown's .....70&5%
Jones' ....65&5%
Bench—See Stops, Bench.
Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)
Bush
Common Axe Handle .....per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25
Clothes—In. ⅜&5-16 ¾ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00
Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c
Coat and Hat.
Cast Iron.....per gro 73c@$1 00
Gem Wire.....75&10%
Conductor.
Malleable.....50&10%@50&10&5%
Wrought.....40&10%@50%
Corn.
Common, unpolished, per doz. $1 40
" polished... " 1 80
"Cut Easy," .....per doz. 2 75
Clyde's, ... " 3 00
Gate.—See Goods, Bright Wire.
Grass.
Common, Nos. 2 3 1
Per doz..... $1 75 $1 80 $1 90
German .....per doz 1 90
Little Giant..... " 3 10
Wood's..... " 1 30
Hammock.
With Plate..... " 31c
With Screw..... " 31c
Lambrequin or Drapery...per gro 21c
Picture .....50%@50&10%
Potato and Manure.....60&15%
Screw, Brass.....80&20%
(See Goods, Bright Wire.)
Seat Spring .....per lb 5½c

HOOPS—TUB.

Ever Ready..... per case $1 65

HOSE—GARDEN.

3 ply ¾ in. 35 lb. pressure per ft..5½c
3 " ¾ " 50 " " " ..7½c
3 " ⅞ " 70 " " " ..7½c
3 " ¾ " 70 " " " ..9 c
4 " ⅞ " 80 " " " ..9 c
4 " ¾ " 80 " " " .10½c
6 " ¾ " 125 " " " .11½c
8 " ¾ " 150 " " " ..13 c
Cotton ¾ in. 75 lb. pressure per.. c
" ¾ " 150 " " " 9c

HUSKERS.

Boss.
Nos. E A B P
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65
Brinkerhoff's .....per gr 14 50
Harrington..... ....per gr 4 20
Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75
Johnson's ....per gro 7 75

IRON.

See Metals—First column.

IRONS.

Curling.
Common ....per doz 35c@45c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby ..... " 1 50
Tourist, Folding ..... " 0 90
Pinking..... " 0 60
Plane.
Wood Bench.....20&5%
Stanley R. & L. Co. (new list)25&5%
Sad.
Charcoal.....per doz $10 75
Common, Polished, per 100 lbs 3 50
" Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 79c
No. 55 J, " ... " 76c
No. 50 T, " ... " 82c
No. 55 T, " ... " 79c
No. 50, Howells'..... " 72c
No. 55, " ..... " 69c
Tailors' Sad .....per lb 4½c
" Goose..... " 4½c
Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton.....each 2 60

JACKS.

Locomotive .....75&5%
Wagon.
Meeker's .....per doz $1 25
Miller's No. 2 ..... " 7
Winner..... " 7

KETTLES.

Brass.....30%
Caldron..... 50%
Copper.....per lb 27½c
Maslin..... .....66⅔%
B ga .....50&5%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade.dz $2 85
" 10¾-in. Straight " .dz 3 15
California.....dz 3 40
Cooper's Hoop 15%
Corn.
Ajax..... " $2 10
Drawing.
Standard.....70%
Adjustable 30%
Barton's Carpenters'.....10%
" Folding Handle....35&5%
Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 2 20
Heath's..... " 2 25
Iwan's Sickle Edge..... 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 5 75
Wadsworth's Sp'r Point " 8 75
Hedge.
Ajax, Heavy, $5 75; E Heavy, $7 75 per doz.
Mincing.
Common, Single .....per doz 45c
" Double..... " 65c
Streeter, 4 Blade, $1 30; 8 Blade, $1 90 per doz.
Putty.
Common.....per doz 54c
Goodell's.....per doz $1 20@$1 80
Russell's. ..... " 1 75@ 2 25

KNOBS.

Door, Mineral.....per doz 0 70
Porcelain ..... " 0 80
Jet..... " 0 80

LADDERS.

Common Long .....per ft 9c@14c
Extension .....per ft 12c
Step.
Common..... " 7c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household. per ft 13c@15c

LANTERNS.

Bull's Eye Police.
3-in Flash Light.....per doz $3 00
3¾-in Regular..... " 4 00
3-in Regular..... " 5 00
Tubular, Berger.....40&10&5%

LEADERS—CATTLE.

Nos. 1 2 3
Per doz.... $0 55 $0 70 $2 75

LEATHER—LACE.

Out .....50&10%
Sides, Ex. Quality.....per sq ft 30c

LEATHERS—PUMP.

Valve and Plunger.....50%

LIFTERS.

Stove Cover.
Japanned.....per gro $2 75
Coppered ..... " 3 00
Devore's..... " 5 50
Zero ..... " 3 00
Transom, Payson's.....70&10%

LINES.

Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 12c 17c 22c 25c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz.... 24c 30c 36c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... ..... 25c 30c 35c
Masons', in 100-ft hanks...doz $1 00
Clothes.
60-ft Jute .....per doz $0 95
72-ft " .... " 1 10
60-ft Sisal ..... " 1 00
72-ft " ..... " 1 10
60-ft Cotton..... " 1 25
50-ft Braided Cotton..... 1 00

LINING—STOVE.

In Bricks.....per crate 45c

MACHINES.

Boring Without Augers. With Augers.
Ajax .....per doz $5 25 $5 75
Angular... " 3 25 5 00
Boss ..... " 4 50 5 00
Upright... " 3 90 4 00
Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 2 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00
Washing.
Boss. 1 2 5 3
Per doz.. $57 00 $63 00 $69 00 $80 00
Globe, No. 1.....per doz $53 00
O K Rotary..... " 56 50
Round Wayne..... " 36 50
U. S. Steel..... " 80 00

MALLETS.

Carpenters'.
Fibre Head, Small. Med. Large
Per doz..... $5 00 $5 75 $6 75
Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 3 25
Tinners'.
Applewood ..... " 60
Hickory..... " 85
Hickory Sheet Iron. .. " 1 50

MATS.

Door.
National Rigid .... 50, 10&5%
Queen Flexible 50%
Stove
Standrd Quality ...... per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex. Heavy .... per doz 1 00

MATTOCKS.

Ajax .... 60, 10 & 5%
Extra 70%

MAULS.

Iron, lbs.	10	13	16	18	21
Per doz.	$3 15	$3 85	$4 45	4 75	$5 25
Wood face, lbs.	10	11	12		
Per doz.	$4 75	$5 00	$5 25		

Wood Choppers'.
Lake Super'r & Oregon Pat. 70&10%

MEASURES.

	½ pk	1 pk	½ bu
Galvanized..per dz			$3 65
Japanned. .. "	$1 40	2 10	$2 60

METAL.

Babbitt.
Alm .... per lb 8½c
Best .... " 23c
Common, No. 4 .... " 6½c
Copper Mixed .... " 18½c
Magnolia Metal .... " 19c
Tony .... " 10½c
See Metals—In first column.

MICA

First Quality .... 40& 10%
Second Quality .... 50 & 10%

MILLS—COFFEE.

Enterprise .... 25&5%
National 50%
Parker .... 50&10% @60%

MOPS.

Erie .... per doz $3 15
Handled Cotton.

Lbs.	¾	1	1¼	2
Per doz..	$2 00	$2 35	$2 65	$3 25

MOWERS—LAWN.

Ball-Bearing.

In.	15	17	19	21
Each	$7 50	$8 50	$9 50	$10 50

Cheap Grades.

In.	12	14	16	18
Each	$2 10	$2 10	$2 10	$2 20

Clipper .... 50&10&10%
Girard, in. 14 16
Each $2 25 $3 50
Philadelphia.
All Styles Except A & E 60&10&10%
Style A .... 50&10%
Style E, High Wheel. .60,10,10&10%
Drevels 50%
All Day .... Net Price

NAILS.

Cut Steel .... rates, $2.05
Horse Shoe.
Ausable 50%
Capewell 10%
Perfect .... 40&5&
Putnam 10-5%
Star 35%
Picture.
Brass Head .... 40&10%
Judd's .... 40&10%
Brads .... 80&10&10%
Furniture 40%
Wire.
Small Lots $2.05
Carload " 2.00
Cement Coated 1 80

NETTING—POULTRY.

Galvanized Before Weaving. 80&20
" After Weaving .. 80&15
Cut Pieces .... 65&5%

NIPPERS.

End Cutting.
P. S. & W. Co. .... 60&10%
Stubb's Pattern .... 60&10%
Hoof.
Heller's .... 40&5%
P. S. & W. Co. .... 40&10%
V. & B 40-5%

NOZZLES.

Hose.
Genuine Boston .... per doz $3 05
Genuine Gem .... " 2 95
Magic .... " 3 15

NUTS—HOT PRESSED.

Square Blank.

In.	¼	⅜	½	⅝	¾	⅞	1
Lb.	9c	6c	4c	3½c	3¼c	3¼c	3c

Square Tapped.

In.	¼	⅜	½	⅝	¾
Lb.	11¾	7½	5¼	4½	4¼

For 5 lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper 35%
Zinc 60%
Engineers'.
Cannon 10%
Tin .... per doz $2 00@$3 00
Machine.
Ajax .... per doz $0 80
Copper Plated Steel... " 1 50
Malleable Iron .... 40&10&5%
Tin .... per doz 55c@65c

OPENERS.

Box, in.	10	12	14
Flat....per doz	$2 85	$3 60	$4 15
Round.. "	3 10	3 25	3 75

Gas.
Delmonico .... per doz 1 80
Never Slip .... " 0 65

Grate, V. & B .... " 5 75

OUTFITS—COBBLING.

Combination .... per doz $11 50
Economical .... " 4 90
Family .... " 10 00

PADLOCKS.

Standard Wrought .... 70&10&5%
Champion 50%
Eureka .... 40&10&5%
Yale .... 60&5%

PAILS.

Cream.
14-qt., Without Ga.... per doz $2 75
20-qt., " " .... " 3 25
20-qt., With Gauge.... " 4 20
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.

Quarts.	14	16	18	20
Per doz...	$3 75	$4 00	$4 65	$5 25

Water, Galvd, qts.	10	12	14
Per doz	$1 50	$1 70	$2 00

Wood.
Cable, 2-Hoop, $1 90; 3-Hoop, $2 10 per doz.
Cedar, 3-Hoop, $3 85 per doz.
Standard, 2-Hoop, $1 65; 3-Hoop, $1 85 per doz.

PANS.

Dripping .... 50&10&5%
Fry, Common .... 60&10&5%
Acme .... 66⅔&5%
Roasting.
Brownie .... Each 30c@37c
L. & H .... " 58c@80c

PAPER.

Building.
Plain .... per 100 lbs $1 15
Tarred .... " 1 25
Tarred Felt .... " 1 80
Diamond A, Red Rosin.pr roll 0 60
Leader, Red Rosin..... " 0 45
Sand and Emery.
Ajax .... 50&10%
B. & A .... 50 & 5%
Wrapping.
Grecian Express .... per lb 3½c
Rag .... " 3½c

PARERS.

Apple.
Bay State .... per doz $12 75
Reading .... " 6 50
Turntable .... " 5 70
White Mountain ...... " 4 50
Potato.
Goodsell's Saratoga 10½in. dz. $6 50
" " 5 in. " 5 50

PICKS

Adze Eye Ore .... 65&5%
Drifting and Poll Picks ...... 60&10%
Ajax Railroad .... 60, 10 & 5%
Extra Railroad 70%
Surface .... 65&5%

PINCHERS.

Carpenters', wrt. iron, pol. steel jaws 30%
Blacksmiths' 50%
P. S. & W. .... 40&10&5%

PINS.

Clothes.
Common .... per gr.. $0 12
Hoyt's .... " .. 20
U. S. .... " .. 70
Picket.
Fluted 15 in .... per doz.. $0 70
" 21 in .... " .. 1 60
Spiral .... " .. 1 90

PIPE.

Conductor.	Nested	Not nested
Eastern, A...	75&7½%	75&2½%
Eastern, B.	75&10&2½%	75&7½%
Central	75&7½%	75%
Southwst'n..	70-&7½%	70&2½%
Texas	70&7½%	70&2½%
Mo. River....	70&7½%	75%
Southern	70&10%	70&5%

Lead.
Full coils .... per lb.. 6¼c
Cut " .... " . 6¾c
Stove.

Acme—In.	5	6	7
Smooth, per jt.	10½c	10½c	12½c
Planished, " ..	33c	33c	43 c
Peerless--Smooth..	8½c	9c	11½c
Polished.	16c	18c	22 c
Planished	28c	31c	40 c
Made-up—In.	5	6	7
Smooth	8¾c	9c	12 c

7 to 6 in. Smooth Tapers, pr jt..14c
6 in, Smooth T's .... " ..30c
7 to 6 in. Planished Tapers 45c
Wrought Iron Gas Pipe.
⅛@⅜-in., black ...... discount, 62½%
½ " 65%
¾-in. to 4-in , black.... " 70&5%
4½ " 6 " .... " 70&5%
7 " 12 " .... " 65%
⅛@⅜" galvanized " 50%
½ " " " 55%
¾ " to 4 " " 57½%
4½ " " 6 " " 57½%
7 " " 12 " " 52½%

PLANES.

Siegley Iron Bench .... 50&10%

PLANTERS.

Corn,
Monitor .... per doz.. $7 75
Triumph .... " .. 6 00
Potato
Acme .... per doz.. $6 25
Challenge .... " .. 10 75
Fencing.
Cronk's .... per doz.. $9 25
Farmers' Choice .... " .. 8 75
Russell's .... " .. 8 65

PLIERS.

Flat and Round Nose.
Bernard's 30%
German 50%
Lodi 40%
Paragon .... 40&10%
P. S. & W. Co. 35%

Gas—In.	8	10	12
Per doz	$3.10	$4.00	$4.90

Button's—In.	4½	6	8	10
Per doz	$2.60	$3.10	$3.90	$5.2[illegible]

Button' Pattern.

In.	4½	6	8	10
Per doz. ..	$2.25	$2.50	$2.45	$4.4[illegible]

Cutting.
Bernard's 30%
Cronk's Impr'vd Button Pliers. 75%
Cronk's Linemans No. 80 ...... 40%
Cronk's Stubbs Pattern .. 50&10%
Cronk's No. 1 .... 60&10%
Cronk's Staple Puller Pliers.. $9 00
Lodi .... 40&10&5%
4 Tube, revolving.... " .. 5 25
Tinners'.
Hollow ....
Solid .... each.. 5½c

PLUMBS AND LEVELS.

Common .... 75%@75&10%
Cook's 40%
Davis' Iron 30%
Davis' Inclinometer 30%
Stanley's

Nos.	00S	0S	2S	3S
Per doz. .	$4.50	$5.20	$7.60	$8.65
Nos.	30	25	50	35
Per doz.	$13.00	$17.50	$17.50	$12.35

POINTS.

Drive Well Points .... 80&10%

POKERS—STOVE.

Wr't Iron, str't or bent, per doz. $0 50
Wr't Iron, wood hand'ls " 75
Nickel pl'td, coil hdl's.. " 70

POKES—ANIMAL.

Brown's, wr't steel, per doz. $5 00@$6 00

POLES—FISHING.

Bamboo

Ft.	12	14	16	18	20
Pr 100..	$2.75	$2.40	$4.75	$6.30	$7.75

POLISH.

Metal.
Pride of the Bar..... " .. 50
Putz Cream.

Pts.	1-6	¼	½
Per doz	$0.84	$1.35	$1.50

Pts.	1	2	4	8
Per doz.	$2.60	$6.00	$9.00	$18.00

White Silk, half pints, per doz. $2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine

Pts.	1-6	¼	1	2
Per doz...	$0.66	$1.30	$2.15	$3.00

Shoe.
M. D. C. .... per doz.. 35c@50c
F. C. O. .... " 40c
T. M .... " 50c@$1 25
Imperial .... per gr. $5 00
Stove.
Black Eagle, 1 lb cans, pr gr.. $15 00
Black Silk—
5 lb. pail 70c
Paste, 5 oz. cans per doz $1.00
Paste, ½ lb. cans, per doz ... 1.00
Black and Japanned—
Liquid, ½ pint cans per doz.. 1.00
Liquid, 6 oz. cans per doz 75c
Steel Range Gloss per doz ... 1.75
Blackene, 1 lb cans.... pr gr.. 12 00
Black Jack, ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate .... " .. 4 50

POPPERS, CORN.

Round or Square, 1 qt. per doz., 85@95c
Square, 1½ qt .... per doz., $1 00
Square, 2 qt .... per doz., 1 25
1 qt. reversible ...... per doz., 1 50

POTS—FIRE.

Bernz .... each.. $3 85
Clayton & Lambert's, each, $4 75@$6 25
Gate City .... each.. 6 25
Gem .... " .. 5 75

POWDER.

See Ammunition.

PRESSES—FRUIT AND JELLY.

Enterprise Manufacturing Co... 25%
Henis .... per doz. $3 10

PRUNERS.

Disston's Pole .... per doz.. $7 50
Henry's Improved.. per doz.. 65&10%
Water's Improved. " 70, 10&5%

PULLERS.

Cork.
Daisy .... each.. $3 40
Phoenix .... " .. 1 60
Quick and Easy .... " .. 3 90
Nail.
Giant .... per doz.. $9 00@10 50
Giant Pattern. " .. 00
Tack—Giant .... " .. 60

PULLEYS.

Awning--Jap'd .... 40&5% to 35&5%
Clothes Line .... 30&10%
Hay Fork.
Iron Wheel, 5 in ...... per doz.. $1 65
Wood Wheel, 6 in ... " .. 1 60
Wood Wheel, 6 in... pass knot .... " .. 2 25
Hot House--Jap'd .... 30&5%
Screw ...... " .... 30&5%
Side .... " .... 30&5%
Sash.
Chicago .... per doz.. $0 20
Clark's .... " .. 42
Common Sense, 2 in.. " .. 36
" Pattern, 2 in.. " .. 30
Empire .... " .. 24
Ideal .... " .. 22

PUMPS

Pitcher Spout.

Nos.	1	2	3	4
Each	.90	$1.00	1.10	$1.40

PLATES—TIN.

See Metals in Column 1

Spray.
Blizzard .... per doz.. $14 2[illegible]
Cyclone, tin .... " .. 3 90
" copper ..... " .. 6 75
Daisy .... " .. 3 75
Little Giant .... each.. 2 4[illegible]

PUNCHES.

Conductors', No. 22.... per doz.. $[illegible]
Machine .... per lb .
Saddlers'.
Common .... per doz.. 60c@70c
Good .... " .. 72c@84c

PUTTY.

In Bladders.
Strictly pure ...... per 100 lbs. $2 [illegible]
Commercial ...... " " 2 10

RAIL.

Barn Door.
Light Wrought .. .. per ft. 3c
Safety .... " 4½c
Single Flange .... " 1¾c
Smith's Wro't Bracket—plain 3½c
Smith's Special 4½c
Smith's "Never Jump" 11c 50%
Smith's Plain Steel 30%
Smith's Milled Steel 4½c
Sliding Door.
Painted iron .... per ft. 4½c
Bronzed wr't iron .... " 8½c

RAKES.

Coal or Road .... per doz. $5.60
Garden.
Cronk's Champion 70%
Cronk's Victor 75%
Steel, braced .... 80&10%
Steel, bow 75%
Malleable iron, heavy.... 70 & 7½%
Hay—Wood .... per doz. $1 40@$2 00
Lawn—Wood.
Common .... per doz. $2 35
Automatic .... " 5 75
Gibbs' .... " 3 95
Jumbo, 36 teeth ...... " 6 30

RASPS—See Files

REGISTERS.

List December 5, 1904,
Black and White Japanned 75%
Nickel Plated 75%
Electroplated, Brass, Bronze or Copper 75%

RINGS

and Ringers—Hog.
Blair's Rings .... per doz. 60c
Blair's Ringers .... " 84c
Brown's Rings .... " 65c
Brown's Ringers .... " 90c
Champion Ringers ..... " 1 70
Hill's Ringers .... " 65c
Hill's Rings, boxes ..... " 45c
Masor Rings .... " 60c
Perfect Rings .... " 84c
Perfect Ringers .... " 96c
Wolverine Rings .... " 1 50
Wolverine Ringers .... " 70c
Bull.

Copper	2 in.	2½ in	3 in
Per Dozen		$1 35	1 70
Rea's Impro'd Self Piercing copper, pr d'z	$1 25	1 50	1 75
Steel, per doz		$.95	1 05
Nichel Plated		1 25	

Fruit Jar—White .... per lb. 30c
Key.
Split, round .... per doz. 1
Split, square .... " 22c
Ball, round .... " 22c

RIVETS.

and Burrs.
Copper Belt .... 10&5%
Coppered Iron 75%
Tinners' .... 66⅔@10%
Hame .... per lb.
Slotted Clinch ...... per doz. 40c@45c
Tubular—Nos. 1 and 2, assorted sizes .... per doz. 45c

ROPE.

Per lb
Pure Manila, rates 12¾c
Sisal, Eagle, rates 8¾c
Cotton.
¼, 5-16-in. Com on reels. per lb. 13½c
¼, 5-16-in. Com in coils... " 18c
¼, 5-16 Imperial in coils " 22c
Sewall & Day Sisal Rope, rates 10½c

RULES.

Boxwood 60%
Ivory .... 35&5%

SASH WEIGHTS.

Per ton, f.o.b. Chicago .... $20.

SAWS.

Back.
Disston's .... 35&7½%
Jackson's .... 35&7½%
Butchers'—Disston's .... 35&7½%
Circular.
Disston's 50%
Hiles' 50-10%
Compass.
Common .... per doz. $1 35@1 6[illegible]
Disston's .... 35&7½%
Cross-Cut.
Atkin's 40%
Disston's .... 40&10% &50%
Pocahontas Bit .... per ft. 29c
Pocahontas, Blued ...... " 41c
Dehorning.
Atkins' .... per doz. $5 3[illegible]
Disston's .... " 5 7[illegible]
Hack.
Disston's 25½%
Keystone 33½%
Sterling Hack Saw Blades 35%
Sterling Hack Saw Frames... 30%

SAWS—CONTINUED.

Hand and Rip.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's Nos. 5, D6, 12, 76, 112, D100, and 120 ..... 25&7½%
Gorham's Comb ..... 30&7½%
Keystone ..... 30&7½%
Sam Sickles', hand ..per doz. $4 25
"I Will," hand ..... " 5 75
"I Will," rip ..... " 6 75
"U. S. A." hand ..... " 12 25
"U. S. A." rip ..... " 14 25
Keyhole—Disston's ..... 25&7½%
Kitchen
Sterling 25%
One Man 50%
Panel.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's D100 ..... 25&2½%
"I Will" 40%
"U. S. A." ..... 40&10&5%
Pruning.
Avery's Duplex ..... 25&7½%
Brown's ..... 25&7½%
Disston's ..... 25&7½%
Wood.
Common ..... per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever ..... per doz. $ 1.20
Stillman's Lever ..... per doz. 1.20
Leach's ..... per doz. 5.00
Nash's ..... per doz. 4.20
Monarch ..... per doz. 6.50
Atkin's Pattern ..... per doz. 3.50

SAW FRAMES.

Common, plain ..... per doz. $1 20
" painted ..... " 1 60

Counter. SCALES.

Pelouze ..... 40&10%
Platform.
Osgood 50%

SCOOPS.

Grain.
½ Bu. "Hercules," per doz. ..$13 75
1 " " " " ... 15 50

Box. SCRAPERS.

Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 50
Cabinet.
Ajax ..... per doz. $9 25
Cast Steel ..... " 65c@75c
Stanley's No. 80 ..... " $8 40
Good.
Cubic ft. 7 5 3
Without runners, ea. $4.35 4.10 3.85
With runners ..... " 4.60 4.35 4.10

Bench. SCREWS.

Iron ..... 50&5%
Wood, white maple ..per doz. $3 60
Hand—Wood 30%
Hand Rail ..... 70&10%
Jack ..... 75&5%
Lag or Coach, ... 80%
Saw—Centennial.
Nos. 1 2 3 4 5 6
Per doz. 19c 22c 17c 22c 23c 27c
Wood.
F. H. Bright Steel ....87½, 10&10%
R. H. Blued Steel ..... 85&5%
F. H Jap'd Steel ..... 82½&5%
F. H. Brass ..... 85&5%
R. H. Brass ..... 80&5%
R. H. Nickel Plated 75%

SCYTHES.

Clipper, grain ..... per doz. ..$8 00
Dutchman, grass ..... " .. 6 45
Golden Clipper, grass. " .. 6 25
U. S. A., grass ..... " .. 7 00

Nail. SETS.

Round, common ..... per doz. ..$0 33
Square " ..... " .. 42
Octagon " ..... " .. 33
Square, Buck Bros. .. " .. 1 25
Cup Point, knurled, pr doz. 70c@90c
Rivet.
Farmers' ..... per doz. ..$1 45
Tinners' ..... 50&10%
Saw.
Aiken's Pattern ..... per doz. ..$3 50
Common Lever ..... " 1 20
Disston's Monarch ... " .. 6 50
" X Cut ..... " ..11 75
German ..... " .. 1 25
Morrill's Old Style ... " .. 5 00
" Pattern ..... " .. 4 50
Leach's ..... " .. 4 80
Nash's Hand ..... " .. 4 00
" X Cut ..... " .. 5 50
Stillman's Lever ..... " .. 1 20
" X Cut ..... " .. 2 50

SHARPENERS—SKATE.

Diamond ..... per doz. ..$1 60

SHAVES—SPOKE.

Iron ..... per doz. ..$1 25@$2 75
Wood ..... " .. 2 75@ 4 75
Bailey's ..... 50&5%
Goodell's 15%
Stanley's Universal ..... 30&5%

Pruning. SHEARS.

Buckeye, No. 1 ..... per doz. ..$6 75
" No. 2 ..... " .. 8 40
California Pat., 9 in. " .. 4 25
" 10 in. " .. 5 00
Draw Cut, No. 3 ..... " ..14 75
" No. 4 ..... " ..17 50
Henry's Pat. 0 01 14 012
Per doz. ..$1.90 $2.50 $3.15 $3.50
Star ..... per doz. ..$4 75
Sheep—No. BBA.
6 in. 6½ in. 7 in.
Reg. Grip. ..$11.25 $11.50 $12.00
Nar. Grip. .. 11.75 12.00 13.00 doz.
Tinners'—See Snips.

SHEAVES—SLIDING DOOR.

In. 3 4 5
Common ..Per set. ..$0.42 $0.48 $0.70
Hatfield's. " .. .75 1.00 1.60

SHELLERS—CORN.

Union ..... per doz. ..$7 25

SHIELDS.

Expansion Bolt Shields ..... 50&10%

SHOES.

Conductor.
5-inch ...each 75c. per doz $8.64
6 " ..... " 8 c. " 10.18
75% discount to dealers on 3-inca, 2-inch and 4-inch plain, round and round corrugated shoes.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Drain.
Iwan's Perfection 50%
Railroad, Etc.
Gold Hibbard's ..... per doz. .. $9 25
C. H. Conovers's ..... " .. 7 75
Beckwith's ..... " .. 7 75
Hickory ..... " .. 6 25
Greenleaf's ..... " .. 5 75
Columbus ..... " .. 5 00
Ames' new list ..... Discount 12½%
Coal.
No. 2 Ajax ..... per doz. ..$5 25
No. 4 Golds ..... " .. 6 25
Ames' new list ..... Discount 12½%
Snow, per doz. ..... $1 65@$9 00

SIFTERS.

Hunter's Genuine ..... per doz. $1.10
" Imitation ..... " .90
Tin Rim, 16 mesh plain wire 1.35
Wood " 16 mesh plain wire .80

Cast Iron. SINKS.

Painted ..... 1 &5%
Enameled, White ..... 60-10&10%
Wrought Steel.
Painted, new list ..... 40-10&5%

SLEDGES—See Hammers.

SNAPS—HARNESS

Champion 65%
German Pattern ..... 30&5%
Judd's Pattern ..... 60&10%@70%

SNATHS.

Double Ring, Bush ..... per doz. ..$6 75
Patent Loop " ..... " .. 7 30
" " Grass ..... " .. 6 00

SNIPS—TINNERS'.

Hernisch's ..... 40&5%
National ..... 40&5%
P. S. & W. Co.'s ..... 25&5%

SOLDER.

See Metals

SPRINGS—DOOR.

Perfect. Nos. 1 2 3 4
Per doz. 32c 38c 45c 48c
Reliance, Light $1.40, Heavy $2.20 doz.
Star ..... " .90, " 1.30 "
Torrey's ..... per doz. ..$1 20
Warner's— No. 11 No. 13
Per doz. 70c $1 20

SQUARES

Steel and Iron 75%
(Add for Bluing, $2.50 per doz., net.)
Mitre—Stanley's No. 12 ..... 40%
Try.
Stanley's No. 30, new list ...30&10%
" Nos. 12 and 14 ..... 40%
Try and Bevel—Stanley's ..... 40&5%
Try and Miter.
Fox's ..... per doz. ..$7 25
Winterbottom's 50%

SQUEEZERS—LEMON.

Common Wood ..... per doz. ..$0 70
Porcelain Lined, wood. " .. 1 30
Boss, tinned iron ..... " .. 82
Pearl, nickel plated ... " .. 1 30
Star " " ..... " .. 1 60
Little Giant, tin'd iron " .. 4 25
King ..... " .. 2 50
Drum ..... " .. 4 75

STAPLES.

Blind—Barbed ..... per lb. 9½@10c
Butter Tub ..... " 8@8½c
Fence, less than carload.
Polished ..... per 100 lb. $2 20
Galvanized ..... " 2 50
Netting—Galvanized. " 3 90
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples ..... 85-10&5%
Extra heavy ..... 75&10%

STEELYARDS.

Discount 25%

Axe. STONES.

Hindostan ..... per lb. 5½@7c
More Grit ..... " 9½c
Washita ..... " 16½c
Emery ..... 60%@60&5%

Oil—Unmounted.
Arkansas Hard ..... per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@6½
Oil.—Unmounted.
Lily White ..... per lb 43c
Queer Creek 14½c
Ouachita ..... " 30c
Washita ..... " 25c
Scythe—Black Diamond, per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum ..... " 7 50
Green Mountain ..... " 4 20
La Moille ..... " 7 00
White Mountain ..... per gro. 6 50
Willoughby Lake ..... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss' ..... per doz. $3 60

STOPPERS—FLUE.

Common ..... per doz. 42c
Crown ..... " 48c
Gem, flat, painted ..... " 72c
Gem, cor'd, decorated ..... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop ..... per doz. prs. $1 80
Skate ..... " " 60@70c
Carpet. STRETCHERS.

Bullard's ..... per doz. $3 90
Excelsior ..... " 6 00
Malleable Iron ..... " 70
Perfection ..... " 6 00
King ..... " 4 50
Wire.
N. S. Elwood's ..... per doz. $5 75
O. S. Elwood's ..... " 6 00
Little Giant ..... " 5 50
Star Lever ..... " 6 25
Star Tackle Block ..... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron ..... per lb. 5½c
Wrought Steel ..... per gro. $4 50

TACKS.

American Cut ..... 90&5%
American Wire ..... 85&25&10%
Bill Posters Cut ..... 90&40%
Blued Carpet ..... 90&15%
Tinned Carpet ..... 90&15%
Gimp ..... 90&30&10%
Upholsters' Cut ..... 90&40&5%
Upholsters' Wire ..... 90&25%
Double Pointed ..... 90&20%
Copper ..... per lb 27c
Canvas Nails ..... 75&5%
Clout Nails ..... 75&10&5%
Hungarian Nails ..... 80&5%

TAPES—MEASURING.

Asses' Skin ..... 40&10%
Bend Leather 25%
Patent Leather 25%
Lufkin's Steel 30%
Lufkins Metallic 30%

THERMOMETERS.

Tin Case ..... per doz., 95c@$1 25
Wood Back ..... " $1 75@ 9 00
Glass ..... " 15 50

Bale. TIES.

Single Loop ..... 80&7½%
All other kinds ..... 65&10%
Cow—See "Chains."

TOOLS—SAW.

Atkin's Dexter ..... per doz. $4 25
Atkin's Excelsior ..... " 6 25
Disston's Universal 40%
Game. TRAPS.

Newhouse 50%
New Victor 75-10%
Mole—Reddicks ..... per doz. $5 75
Mouse and Rat.
Wood Choker ..... per hole 11c
Tin Choker ..... " 9c
Delusion ..... per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat ..... " $6 75
Marty Rat, Imitation .. " 3 75
Marty Mouse ..... " 3 15
Marty Mouse, Imitation " 2 10
French Automatic ..... each $3 60
Fly.
Balloon ..... per doz. $1 10
Harper's ..... " 1 25
Brick. TROWELS.

Standard 30%
Brade's ..... 10&7½%
Disston's 30%
Rose's 25%
Plasterers'.
Standard 33½%
Disston's 30%
W. & McF 25%

TRUCKS.

Bags ..... each $1 70
Handy ..... " 1 50
Warehouse ..... 60&5%

No. 1 2 3
Half Ironed $2.60 $3.40 $5.00
Full Ironed 3.90 5.75 6.75

TUBS-WASH. Ex.
No. 3 2 1 large
Standard, per doz. $5.25 6.25 7.25 9.75
Dowel ..... " 5.60 6.60 7.50 10.00
Cedar ..... " 6.50 7.50 8.25
Indurated. " 7.20 7.95 9.45 11.70
Galvanized. No. 1 2 3
Per doz $4.75 5.25 6.00

TWINE. per lb.
3-ply Cotton Wrapping 31c
4 " " " 31c
4 " Cotton Extra Wrapping 27c
4 " " " Hvy. Wrap'g ... 26c
4 " " Wrapping on tubes ... 23c
3 " " " cones ... 23c
4 " " " " " ... 23c
India Hemp, ¼-lb. balls 18c
" " ½-lb. " 17c
" " ¼-lb. " .....doz. 65c
2-ply " ¾-lb. " 11½c
3 " " ½-lb. " 11½c
Jute Wrapping, ½-lb. balls 11½c
Jute Wool, 1-lb. balls 8c
Seine. Nos. 6 9 12 15+
Soft, per lb. .25 .24 .23½ 23
Med. " " .24 .23½ 23
Hard " " .27 .25½ 24½
Staging, ¾-lb. ball, size 21 ..... 23c
" ¾-lb. ball, " 24 ..... 23c
" ¾-lb. ball, " 27 ..... 22c
Bagging, ¾-lb. ball 22c
3-ply "B" in hanks 19c
4 " "B" " " 19c
3 " "A" " " 29c
3 " Silver Finish, in hanks 29c
Fodder or Lath.
130-strand 8c
200-strand 8½c

VISES.

Bonney's 30%
Cheney's 30%
Parker's Oval Slide .....
.....50, 10, 2½% @ 50, 10, 5, 2½%
Parker's Parallel ..... 15@20%
Parker's Victor 10%
Parker's Combination ..... 50&10%
Solid Box ..... 60&5%
Adam's Mechanics' ..... each $2 65
Williamson Universal 30%

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½%
Unground ..... 50, 10&2½%
Extra Finished ..... 40&10%
White Enameled ..... 50, 10&5%
Maslin Kettles 65%
Enameled.
Cherry Blossom and Chrysolite 40-10%

WASHERS.

Standard O. G. cast iron, per lb. ..3½c
Wrought iron in bulk per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
7¾c 5½c 4c 3¾c 3½c 3¼c 3½c
Wrought steel in 5 lb. boxes, per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
8¾c 6½c 5c 4¾c 4½c 4½c 4½c

WEDGES.

Ax ..... per doz. 30c
Galling ..... per lb. ..10½c
Saw ..... " .. 8½c
Calf. WEANERS.

Fuller's, per doz. ..... $2 00 to $3 50
Tyler's Safety, per dz 1 85 to 2 40
Carroll's, per doz. ..... 2 50 to 3 25
Standard, per doz. 2 75
Hoosier, per doz. ..... 3 10 and 4 15

WEIGHTS.

Hitching ..... per lb. ..2½c
Sash—F.O.B. Chicago ..pr ton ..$20.05

WHEEL BARROWS.

Common Railroad ..... per doz. ..$16 00
Heavy " " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray .. " .. 26 50
No. 04 Steel Dirt ... " .. 47 00
No. 04½ " " " .. 50 00

WHEELS.

Corundum ..... 70&10&5
Emery ..... 75&5%
Well. In. 8 10 12 14
Per doz. $1.90 $2.20 $3.00 $5.50

WIRE.

Barbed. Painted. Galv'd.
Carloads ...pr 100 lbs. ..$2.15 $2.45
Less than car " .. 2.20 2.50
Brass.
In coils 20%
In 1 lb. spools, new list ..... 50&10%
Broom—Tinned ..... 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils ..... 20&10%$23½%
In 1 lb. spools, new list ..... 50&10%
Fence—Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $1.90
Nos. 6 to 9, Galv'd ... " 2.20
Hair—New list ..... 50&10%
Market.
Bright, full bdles ..... 70&10%
Bright, broken bdles 70%
Coppered, full bdles 70%
Coppered, broken bdles ..... 65&10%
Tinned, full bdles ..... 70&5%
Tinned, broken bdles ..... 65&10%
Picture.—In coils ..... 80%@80&10%
In 5 lb. spools ..... per lb. ..26c
Plain—Small lots $2.00
Car lots 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard 60%
Alligator ..... 70&10%
Always Ready 50%
Bemis & Call No. 2 Improved Pipe Wrenches 60%
Coe's Standard ..... 40&10%
Girard's Agricultural ..... 75&50%
P. S. & W. Co.'s Agricultural 75&10%
" " Knife H'dle .. 50&5%
Wescott's "S" 33⅓%
Malleable "S" ..... per lb. 05½c
Malleable ..... per lb. 05½c
Stillson Pipe ..... 60&5%
Trimo " 50%
Clothes. WRINGERS.

No. 23, Guarantee ..... pr doz. $28 50
No. 110, Guarantee ..... " 29 50
No. 110, Brighton ..... " 21 50
No. 22, Pioneer ..... " 20 50
No. 2, Superb ..... " 19 50
No. 730, Easy ..... " 26 00
No. 500, Royal ..... " 30 00
No. 350, Universal ..... " 25 50
No. 300, Novelty ..... " 25 50
No. 310, Keystone ..... " 25 50
No. 100, Rival ..... " 21 00

Wants and Sales:

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

Incorporated Furnace Company, in the best location of Colorado, wants a partner with $600, to take interest in the company, so we can move to larger quarters. Business established twelve years at a profit. Address Profit, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

For Sale—The state rights of Illinois, Wisconsin and Minpesota of the Laughell's Combustion Heater. Address Laughell Bros., Box 92, Wyandotte, Mich. 25

Wanted—To trade my equity in 320 acres N. Dak. land for stock of hardware; can pay some cash for square deal. Address H. O. Ebert, Truman, Minn. 26

For Sale—A hardware store in the southwestern part of Michigan, doing a good business. Will invoice about $8,000. For particulars address Box D, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

For Sale—Hardware and furniture store, county seat, population 4,000 to 4,500; doing good business; best location in town. Address Location, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

Wanted—To exchange, a good farm in south Central Minnesota, for good hardware stock. For square deal address, Lock Box 315, Alden, Minn. 26

Wanted—A stock of hardware or hardware and implements in exchange for a good improved Illinois or Iowa farm. Address Exchange, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

For Sale—Half interest, or if preferred the entire business can be bought in a leading hardware business in central Ohio; county seat; sales in 1903, $35,000. This chance will be open only until Feb. 1, 1905. Address Open, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

For Sale—A clean stock of hardware, about $2,800, in a nice town of about 3,500 population. Only one other hardware here; good country around and good crops. Best of reason for wanting to sell. Address A. E. Glines, Belle Plaine, Iowa. 25

For Sale—In central Illinois, a first-class hardware and tinshop in good town; good farming country. Reasons for selling. Address Business, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

For Sale—Hardware and tin shop in a fine location in northern Illinois; goods and tools will invoice about $2,500. This is a splendid farming and dairy country. Good reasons for selling. Address Lock Box 308, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

TINNERS' TOOLS.

Wanted—To buy for cash, complete set of second-hand tinner's tools; also a brake. F. J. Rebmann, 1777 W. Chicago Ave., Chicago. 24

Wanted—Wire eave trough hanger machinery. Must be cheap. Box W. E., care of THE AMERICAN ARTISAN, 69 Dearborn street, Chicago, Ill. 22

HELP WANTED.

Wanted—A good all around tinner, must be a good mechanic, sober and industrious. A steady job to the right man; state wages and experience in first letter and give reference. Address Lock Box 5, Juda, Wis. 25

Wanted—A first-class tinner and shopman. Pipe and furnace work required. One who is married and speaks German preferred. Wages $75.00 a month, and steady job to right man. State old employers, and reason for change. Address Capital, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

Wanted—Two good pattern makers wanted on stove work. Address Stove Work, care THE AMERICAN ARTISAN, Chicago. 26

Apprentice Wanted—$10-$12 per week wages; raise after 6 months if satisfaction given; only willing boy needs to apply to E. G. K., Globe, Ariz. 25

Tinner and Sheet Metal Worker Wanted—$4 daily, steady job to right party; write particulars to E. G. K., Globe, Ariz. 25

Wanted—At once, a steady, reliable first-class tinner and furnace man; one who has some knowledge of plumbing preferred. Steady work the year round. Address Laing & Pearce, Montezuma, Iowa. 25

Stove Salesman Wanted—In Wisconsin, Illinois and Missouri to sell a moderate priced line of western make furnaces on commission. Line has six styles and twenty sizes, is thoroughly advertised and backed up by a reliable concern. Address Concern, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

Wanted—Salesman visiting hardware trade to sell new screw and bolt case from model, as side line on commission. Address John N. Prothero, DuBois, Pa. 25

Wanted—A No. 1 salesman to sell the "F. P." lighting system. One with experience preferred. Good salary or commission paid. None but hustler need apply. Good territory. Enclose stamp for reply. Address H. F. Strehlow, Casselton, N. D. 25

Wanted—A traveling stove salesman who knows from long experience that he can sell stoves at a good profit for any firm employing him, is looking for a wider opportunity in western territory. He is a high class man and wants a high grade complete line; one with quality rather than price. Address Well Known, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

Wanted—By Jan. 1 or Feb. 1, tinner that can do furnace work and pump work; also clerk in store; I have a first-class position for the right man; steady job the year through. Answer quick, state wages. C. W. McMahan, Oxford Junction, Ia. 25

Wanted—Experienced furnace salesman to travel on an increasing commission basis; only those with road experience need apply; send reference, age and all particulars with your application. Address Sphinx, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

Wanted—Tinner, willing to do any and all work around a hardware and implement store; one who is able to set a furnace, and some knowledge of plumbing; steady job by year. Location N. W. Iowa. Address S., care THE AMERICAN ARTISAN 69 Dearborn St., Chicago. 25

Wanted—Stove salesman; good proposition to sell our line on commission in states of Michigan, Illinois and Iowa. The M. Hertenstein Co., Columbus, O. 24

Wanted—Range salesman for 1905 by a leading malleable range company. Good line and good territory. Address Range, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

Wanted—Experienced tin plate and metal salesman for central and southern Ohio and river towns in West Virginia and Kentucky. Address Rolling Mill, care THE AMERICAN ARTISAN, Chicago. 24

Wanted—Experienced tin plate and metal salesman for northern Indiana and Illinois, including St. Louis and a few Iowa towns. Address Manufacturer, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

Wanted—By Jan. 18th, position by an experienced plumber, steam and hot water fitter and furnace heating; am good at tinning. Can furnish best reference. If you want a good salesman as well as a good workman address, The Right Man, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

SITUATIONS WANTED.

Situation Wanted—Traveling salesman; had five years' experience on road selling natural gas stoves. Can sell anything; salary and expenses. Must give 30 days' notice before resigning present position as manager. Address Manager, Carrier 35, Columbus, Ohio. 26

Situation Wanted — By experienced tinner and machinist, position as foreman in can or tinware factory or a good location for a first-class tin and job shop in a live town. Twenty years' experience, 34 years old, married. At present foreman in large manufacturing concern. Address Foreman, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

Situation Wanted—Young man with three years' experience at roofing and gutter work. Wants a position Jan. 1, 1905; good reference. Address Box 171, Bloomfield, Mo. 26

Wanted—At once, a job as tinner by a man of three years' experience; sober and honest. For particulars write Columbus Hdw. Co., Columbus, Wis. 26

Situation Wanted—By a tinner of ten years' experience at the trade; can do all kinds of work, general jobbing of all kinds and can clerk in store. Reference of ability and honesty can be furnished. Address 800 3d St., Watertown, Wis. 26

Situation Wanted—With good hardware and stove house, by experienced hardware and stove man; good reference. Address J. R. M., care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26

Situation Wanted—After Jan. 1st, by a good, sober mechanic, 30 years of age, competent at furnace work, job work, plumbing, pumps, tinware, roofing, etc. J. H. Brown, Jefferson, Wis. 25

Wanted—By Jan. 1st, 1905, position as tinner, plumber and clerk with eight years' experience in all lines; also capable of handling extra lines; can furnish references. Address S. A. C., Box 61, Montpelier, O. 25

Wanted—By Jan. 1, 1905, position as an all around tinner and furnace man; some good reliable hardware firm; also can do ordinary plumbing and pipe work; I have had 15 years' experience at the business; would not object to helping in store when not otherwise engaged; as to location, would prefer central or southern Iowa; good reference given. Address Nick, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

Situation Wanted—By a first-class tinner of 16 years' experience; can do furnace work, dairy work and general shop work and plumbing; married, steady and sober. P. O. Box 676, Antigo, Wis. 25

Position—By plumber; can do some tinning; four years' experience; 25 years of age; can furnish best of references. Would like steady position in city of about 3,000. Lock Box 454, Villisca, Ia. 25

Situation Wanted — An experienced hardware man and steel range demonstrator with No. 1 references, desires situation after Jan. 1st with some good hardware or stove house. Address E. H. M., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

Position Wanted—By first-class cornice, skylight and general sheet metal worker, foreman; good draftsman. Address K. A., 537 Minna St., San Francisco, Cal. 24

Situation Wanted—The year round with a live up to date hardware firm. I am a tinner, plumber, furnace and pump man; 20 years of experience; have been in business myself for the last 12 years; have lately sold out. Am 36 years of age, married man and want a good steady job with a good reliable hardware firm, to take charge of their shop; can furnish first-class recommend in every respect. Address Lock Box 744, Pontiac, Ill. 24

Wanted—By Jan. 1, a tinner with enough knowledge of plumbing and hot water heating to do such work as comes to a shop in a small town; one with ability to clerk in store preferred; permanent job for right man. Address stating wages wanted, etc., Lock Box 97, Manton, Mich. 24

Wanted—Position as sales manager or assistant in stove foundry. Have had both house and road experience; am familiar with malleable iron as well as grey iron constructions. X. Y. Z., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 23

SPECIAL NOTICES.

WANTED

Experienced Sheet and Tin Plate Salesman to cover Iowa; also one for Wisconsin. State experience and salary expected. Address "Metal Supplies," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. e. o. w., 20

WANTED

Stove salesman for Iowa and Nebraska. Road experience will be required. State age, experience and send references with application. Bergstrom Bros. & Co., Neenah, Wisconsin. 2t. 26

WANTED

Experienced stove salesman for Indiana, Illinois and Missouri for a trade mark line of stoves, steel ranges and heaters for 1905. Address with reference and state territory preferred. Jess, Lock Box 337, Decatur, Ill. 1t. 26

WANTED

Experienced and competent Salesman for Northern Illinois. Address A. C. WENBAN, Room 44, 107 Dearborn St., Chicago, Ill. 1t-26

FOR SALE

The undersigned, Receiver of the Liebrandt & McDowell Stove Co., Philadelphia, offers all or any part of their STOVE AND OTHER PATTERNS, TOGETHER WITH THEIR FLASKS, ETC., for immediate sale. Catalogue and further information given upon application.
6t. 25 S. R. McDOWELL, Receiver.

WANTED.

Experienced Stove Salesman at liberty Jan. 1, 1905. Established trade in Texas past ten years in this territory. Address, Stoves, 132½ S. Ervay St., Dallas, Tex. 23 24

SALESMEN

Two good furnace salesmen; one for Eastern, one for Western territory. Address, 301, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

WANTED

Salesman to sell hardware specialty in states west of Mississippi. None but able, wide-awake hustlers need apply. There's money for the right man. Address Enterprise, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

WANTED

—SALESMAN—

To sell Gold Coin stoves in Michigan. The Chicago Stove Works, Chicago. 23

WANTED

Experienced salesmen to handle new line of malleable ranges on commission in Western or Southern territory. Address Faultless Mfg. Co., St. Charles, Ill. 4t.25

WANTED

A first-class furnace salesman for Indiana, Michigan and Western Territory. Address W. F. C., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 25

C. N. HOOPER, Dubuque, Ia.

VITREOUS ENAMELING

TECHNOLOGIST

Designs, builds and starts new plants. Improves quality and reduces the costs in those already established.

MANUFACTURERS

Do you want sample or stock space with or without representation in the most prominent building in the wholesale stove district in New York? J. M. LITCHFIELD, Cor. Water and Beekman Sts., New York City. 25

WANTED

Salesman to carry as a side line Magic Metal Polish, a quick, easy seller. We have a very attractive proposition to offer you. Address MAGIC POLISH COMPANY, Peoria, Illinois. References, Culter & Proctor Stove Co., First National Bank, Peoria, Ill. 3t-24

WANTED

For 1905, by a first-class manufacturer, an experienced stove salesman with established and reliable trade in any of the southern states. Answer with full particulars, No. 54, care THE AMERICAN ARTISAN, 69 Dearborn St, Chicago. 2t.25

WANTED

At once and for the season of 1905, A1 Salesmen to handle our line of goods on commission in the following states: Arkansas, Oklahoma, Indiana, Michigan, Ohio, Texas, North and South Dakota. Write, stating experience, ability and acquaintance in the territory named. We have a splendid proposition for hustlers only. MARION STOVE CO., Marion, Iowa. 6t.-22

WANTED

by January 1st—Two furnace and boiler SALESMEN; *No Order Takers.* Don't apply unless you have had some road experience. Practical men preferred.

L. J. MUELLER FURNACE CO., Milwaukee, Wis. 20

WANTED.

Being thoroughly familiar with the stove, furnace and hardware business, having been in the retail business for 15 years and a manufacturer and on the road for 10 years, I am in position to offer my services to a wide awake concern wishing an enterprising representative in Western territory.

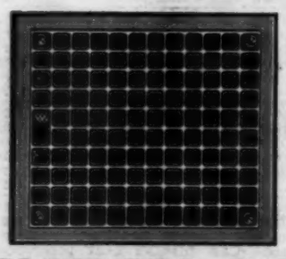
Address, Wide Awake, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 24

NOTICE.

We have exceptional facilities for handling American products: Hardware, Sanitary, Heating and Ventilating Goods, Branches in England and continent. References furnished. Address

EXHIBIT & TRADING CO., Main Office, 155 Duke St., Liverpool, England.

DEALERS



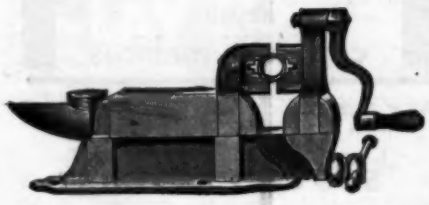
Who Make Money

Are quick to learn that "H. & C." steel floor and side wall registers are stronger, better and *cheaper* than cast registers. Do you know we have a steel side wall at the *same* price as the ordinary floor register?

NORRIS & LORING HDW. CO.

Exclusively Wholesale CEDAR RAPIDS, IA.

HANSON VISE



One of the Best All Around Tools on the Market

Consists of

STEEL FACED ANVIL.
ANVIL VISE.
SAW CLAMP.
DRILL and PIPE VISE.

A Workshop in Itself!

Send for further particulars and prices and get one of our new special catalogues.

Stowell Mfg. & Fdry Co.

51-73 Milwaukee Ave.,

SOUTH MILWAUKEE, WIS.

50 YEARS' EXPERIENCE

PATENTS

TRADE MARKS
DESIGNS
COPYRIGHTS &C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. HANDBOOK on Patents sent free. Oldest agency for securing patents.

Patents taken through Munn & Co. receive *special notice*, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, $3 a year; four months, $1. Sold by all newsdealers.

MUNN & Co. 361 Broadway, **New York**
Branch Office, 625 F St., Washington, D. C.

More Light

If you want the best light possible for your store, for about one-tenth the cost of gas or electricity, write for full particulars about the

ANN ARBOR GASOLINE LIGHTING SYSTEM

BRIGHT AS DAY, CLEAN, CONVENIENT, CHEAP

OUR SPECIAL INTRODUCTORY OFFER

will interest every merchant who believes in modern methods. Write for it to-day. Our catalog shows a full line of Independent Arc Lights and Gasoline Lamps for the house. We can use a few more hustling agents. Write for full particulars to-day.

SUPERIOR MANUFACTURING CO.
249 Second Street, ANN ARBOR, MICH.

The "Graf" CARBIDE CAN OPENER

A Money Saver for the Carbide User.

No more damaged lids or gaskets; no air admitted to your carbide can, thus avoiding a waste of gas to the amount of from $0.50 to $1.00 per can.

ACETYLENE LIGHT & HEAT CO., Mfrs., Cincinnati, Ohio.

Patented.

IT'S THE "ONLY" FLUE STOP

Several styles of covers. Body black or galvanized. It's soot and fire proof—water tight and stays in the chimney. Send for descriptive circular and prices at once. Send orders direct or through your jobber.

NICHOLS & RANKIN COMPANY, BURLINGTON, IOWA

PERSISTENT ADVERTISING

ONE who watches carefully the pages of general advertising mediums is struck by two things: the persistency with which those advertisers who are recognized as successful maintain their advertising week after week, month after month, and year after year; they never seem to abate their effort, and apparently the volume of their business increases steadily. The other thing noticeable is the large number of advertisers who thrust their announcements above the surface for a little while and then sink into oblivion. They either had not merit as a basis for their claims or they did not possess the skill to steer their enterprise successfully, or else they lacked the nerve to put forth proper effort.
—ADVERTISING EXPERIENCE.

We Wish You a Very Merry Christmas!

And if you need Stove, Heater or Furnace repairs in a hurry, and wish to be ***sure*** they will fit, send us your trial orders!

THE WM. T. DUST COMPANY, :: Detroit, Mich.

AMERICAN STOVE REPAIR WORKS

MANUFACTURERS OF

Stove and Furnace Repairs

186-188 W. Seventh Street : : ST. PAUL, MINN.

REPAIRS

For all stoves and furnaces; largest stock in the Northwest.

GIVE US A TRIAL.

Great Western Stove Repair Co., Minneapolis.

J. L. Morris Stove Repair Co.

Wholesale and Retail

Stove, Range and

FURNACE

Repairs,

CHICAGO, ILLINOIS

NEW BLOOD THE *NEW IDEAS*

MANSFIELD STOVE PATTERN WORKS

Mansfield Ohio — F.W. Reynolds Proprietor

WELLER PATTERN Co

DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

QUINCY, ILL.

PATTERNS

For Stoves and Heaters.

First-class in wood and iron.

Vedder Pattern Works, Troy, N.Y.

Established 1835.

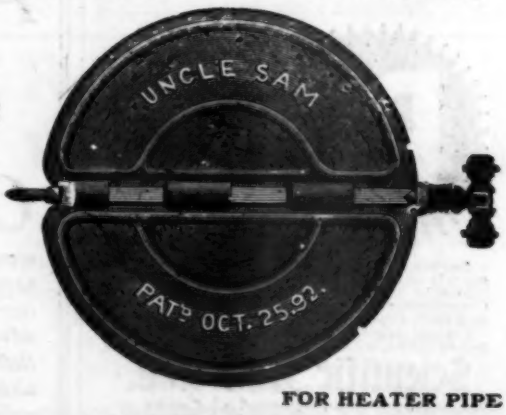
The GEO. W. COPE **Stove Pattern Works** Cor. Brush and Woodbridge Streets DETROIT, MICHIGAN

The Uncle Sam "As Good as Its Name"

DAMPER

was the **first** sheet steel damper made and is still the **first**

This is Why the Trade Like it { Its features include corrugated plate, continuous loop, forged steel pointed stem, positive lock, enameled wood handles. **No pins or rivets to loosen or drop out.**

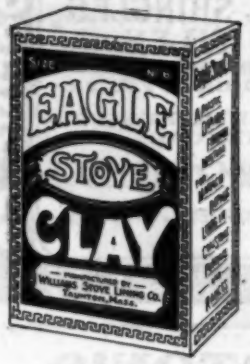


FOR HEATER PIPE

Some humorist has said "The boy who sets out to be as smart as his dad lands nowhere." So beware of all imitations including damper imitations.

SAYRE STAMPING CO., SAYRE, PA.

Eagle Stove Clay



Plastic, Durable, Fireproof. For making and repairing Linings in Stoves, Furnaces and Ranges.

The Quality is Guaranteed.

WE PAY THE FREIGHT

Large Discount.

Put up in attractive square paste board boxes in three convenient sizes.

Manufactured by

Williams Stove Lining Co.
TAUNTON, MASS.

STERLING
Paste Stove Polish

Blackest, Glossiest, Richest, Quickest, Cleanest.

EVERYBODY THINKS SO.

The Sterling Stove Polish Co.
Sterling, Illinois.

Any retail dealer sending postal card request with name of jobber secures Sample prepaid.

ESTABLISHED 1874

The S. Obermayer Co.

Cincinnati. Chicago. Pittsburgh.

MANUFACTURERS

"Everything You Need in Your Foundry."

SEND FOR No 40 GENERAL CATALOGUE.

INDUSTRIES ARE OFFERED LOCATIONS

WITH

Satisfactory Inducements,
Favorable Freight Rates,
Good Labor Conditions,
Healthful Communities,

ON THE LINES OF

THE ILLINOIS CENTRAL R. R.
AND THE
YAZOO & MISSISSIPPI VALLEY R. R.

For full information and descriptive pamphlet address

J. C. CLAIR, Industrial Commissioner,
1 Park Row, CHICAGO,

OPINIONS

May differ on some things, but not as to the Superior Quality of

Polishers and Platers Supplies

Manufactured by

F. B. STEVENS
200-210 Larned St., West
DETROIT, MICH

Send for Samples and Prices.
BOTH ARE RIGHT.

Send for Samples

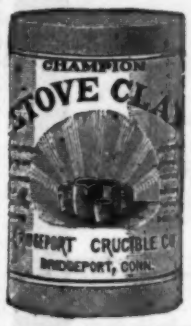
Gripsit Stove Putty,
1904 Heavy Stove Plate
and
Favorite Return Facing.

The best to have when you have to have

The J. D. Smith Fdy. Supply Co.
Cleveland Facing Mill
Cleveland, O.

Send for No. 36 Catalog.

Champion Stove Clay



The only Stove Lining made of crucible materials.

Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes.

Order it from your jobber.

The best and most refractory lining made.

Bridgeport Crucible Co. Bridgeport, Conn.

High Grade Porcelain and Majolica Enameling

in all shades and colors, on steel, sheet and cast iron.

Our Porcelain Enamel is unexcelled for stamped steel Kitchen Sinks, Refrigerator Linings, Lamp Shades and Ventilators, steel and cast iron Registers, Steel Ranges and Steel Stoves of any description and cast iron Stove Reservoirs, etc., etc.

Cast Iron Parlor Stoves or any other cast iron stoves enameled with our Majolica Glazes are an ornament to any home. We have thirty years' experience in this line and there is nothing new about our enamels. They have all stood the test.

Estimates and information cheerfully furnished upon receipt of samples and particulars.

JOHN PEIL ENAMELING WORKS,
187-191 East Naghten St. COLUMBUS, OHIO

DIXON'S STOVE CEMENT.

For repairing rapidly and effectively cracked, broken or worn fire-brick linings in stoves and ranges. A first-class repair. A first-class seller. Circular 18-L and sample upon request.
JOSEPH DIXON CRUCIBLE CO., - - - - JERSEY CITY, N. J.

CORNICE COPPER

Soft and Cold Rolled—all Sizes.
Boiler Sheet Copper and Bottoms.
All Kinds of Tubing, Rod, Sheet and Wire in Copper and Brass.
Soldering Coppers.

Send for Stock List of what we Carry in Our Store.

Benedict & Burnham Brass and Copper Co.
211-213 Lake Street, CHICAGO.

THE NATIONAL SHEET METAL ROOFING CO.
METAL SHINGLES & TILES
FROM TIN, GALVANIZED TIN AND COPPER.
REQUIRE NO PAINTING OR AFTERCARE
RUST, STORM AND FIRE PROOF
LARGEST VARIETY OF STYLES
339-345 GRAND ST
JERSEY CITY, N. J.

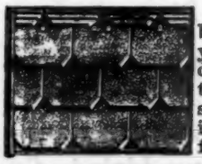
"EAGLE" BRAND COPPER RIVETS AND BURRS

STANDARD FOR QUALITY. (Lake Superior Copper.) MANUFACTURED BY

THE PLUME & ATWOOD MFG. CO.

29 Murray St., NEW YORK — 196 Lake St., CHICAGO

BURTON'S Eastlake Shingles



Have been on buildings for 17 years, in good condition yet. Better than any metal, slate or wood roofing sold. Write for catalog.

The W. J. Burton Co.
DETROIT, MICH.

Merchant's High Grade Roofing Plates

"Merchant's Old Method"
"Merchant's Roofing"
"Merchant's American Old Style"
"Camaret" "Alaska"

Coated by the Palm Oil Process throughout.

Send for booklet "How Roofing Tin (Good and Bad) Is Made."

PHILADELPHIA NEW YORK — **MERCHANT & CO., Inc.** — CHICAGO BROOKLYN
SOLE MANUFACTURERS
Also Metal "Spanish" Tiles, "Gothic" Shingles—The Star Ventilator.
HIGH GRADE BRIGHT TINPLATE.

METAL SHINGLE ROOFING

With Montross Telescope Side-lock is the best roofing in the world for house or barn. Stormproof. Easily applied. Catalogue, Prices and Testimonials free for the asking.

Montross Roofing Co., - Camden, N. J.

You do not have to paint
Arrow Brand Asphalt Ready Roofing

When laid according to directions it will need no care for many years.

Asphalt Ready Roofing Co., 136 Water St., N. Y.

Garry Goods Are Good Goods

Corrugated Iron and Steel Eaves Trough, Conductor Pipe and Gutters, Structural Iron Work, Roof Paints

Garry Iron & Steel Co.
CLEVELAND, OHIO

Portable Asphalt Roofing
The World's Best
Rexoid, Felspar, Slag, Asbestos, Cork, Gravel, 1, 2, 3 ply Paints, Cement.
Write for samples, prices and booklet.
Our line brings trade—
Gives universal satisfaction.
Stowell Mfg. Co., Jersey City, N. J.

PATENT LIGHTING PORTABLE PUNCH NO. 3; a high grade tool, adapted to all forms of curved or flange work; pays for itself every week in the year. Cap 3-16 iron.

For catalog and price address

American Lock Nut Company, Oregon, Illinois

L. D. McQUISTON & CO., Monticello, Ark., write: "You may discontinue our want advertisement as it has already brought about the required results."

CORTRIGHT METAL SHINGLES

Haven't injured the business of the Tinner—on the contrary they've increased it. Let us tell you why. No trouble to answer questions or help you get business. Write today.
Cortright Metal Roofing Co.
Philadelphia & Chicago.

HOMESEEKERS EXCURSIONS
On FIRST and THIRD TUESDAYS in each month to **VIRGINIA**
Via NORFOLK & WESTERN RAILWAY
For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address
ALLEN HULL, D. P. Agt., Columbus, Ohio

FLAT CRIMP EXPANDING ELBOWS.

No. 0. No. 1. No. 2. No. 3. No. 4.

PATENTED JUNE 4, 1895.

None genuine without signature

F. Dieckmann

Station B., CINCINNATI.

Automatic Soldering Iron and Blow Torch

Furnished with two coppers, one for regular work and one for heavy roofing work. Nothing complicated. No pump to get out of order. No platinum coils to burn out. Never too hot and never too cold. No wind will blow it out. Can be changed to blow torch instantly. Can be carried in any tool kit, or lineman's belt. Will last for years. Used by tinners, plumbers, painters and electricians. Guaranteed to give satisfaction. If your jobber does not handle them write us.

EMMELMANN BROS. MFG. CO., Indianapolis, Ind.

ASK YOUR DEALER FOR THE

Sem's

Soldering Furnace

AND YOU WILL MAKE NO MISTAKE

Always ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

TIN, BRASS OR COPPER RESERVOIR Equipped with Cylindrical Slotted Burner.

MADE ONLY BY

BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

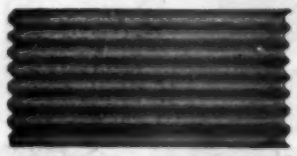
ELEVATORS

Improved Quick and Easy Rising Steam, Electric and Hand Power

Send for circulars.

KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IA.
KIMBALL ELEVATOR CO., 139 Vincent St., CLEVELAND, O.

It costs money to advertise—it costs a darned sight more to stagnate.
—*Anco Special.*



Write us for Catalogue and Low Prices on BEST

Steel Roofing, Corrugated Iron, Etc.

We are large manufacturers of these goods, and can save you money.

SYKES STEEL ROOFING COMPANY
CHICAGO, ILL., and NILES, OHIO

TINNERS

You can save the price of a No. 10 Furnace in one year's time in the saving of gasoline over other styles; also many dollars' worth of time.

NOISELESS, NO ODOR, NO SMOKE

More Heat with Less Fuel.
Greatest Range of Heating. 3 to 12 lb. Coppers Indoors or on a Roof.

Order direct of your Jobber, or we will ship direct for $6.50.

GEO. W. DIENER MFG. CO., 217 E. Lake St., Chicago

"Why is it that Jones is so Successful?

He seems to be busy all the time but never too busy to promptly serve his patrons. I understand **Smith who used to be one of your best customers now patronizes Jones.** What was the trouble?" "Well, you see, their water pipes froze up and I could not get to him quickly enough. The fact is I should have had more torches on hand, but I put it off until too late." **"So that is the reason is it? No wonder Jones prospers."** The No. 32 is the best quart combination torch on earth. Jobbers sell at factory price, or we will ship by paid express upon receipt of $3.50. Your money back if it does not please.

$3.00 Net.

Clayton & Lambert Mfg. Co., Detroit, Mich., U.S.A.

THE SOUTHERN STATES

of Alabama, Kentucky, Tennessee, Mississippi, Georgia, Florida, Virginia, North Carolina, South Carolina and southern Indiana and southern Illinois, along the

Southern Railway and the Mobile & Ohio Railroad

offer the finest advantages for Manufacturers, Investors and Homeseekers. There are many good locations where Factories will find excellent Locations with plenty of Raw Material, Labor, cheap Power and good Marketing facilities.

There are especially fine Investments available in Timber, Mineral and Farming Lands.

The territory of the Southern Railway and the Mobile & Ohio Railroad is wonderfully prosperous and is the Country for Business, Investment, or Residence.

Write us for information, telling us what you desire in the way of Location or Investment. Our services are at your disposal without charge.

M. V. RICHARDS,
Land and Industrial Agent, Southern Railway,
WASHINGTON, D. C.

CHAS. S. CHASE, Agent, Chemical Bldg., St. Louis, Mo.
M. A. HAYS, Agent, 225 Dearborn Street Chicago, Ill.
W. A. MOYER, Agent, 271 Broadway, New York City.

Christmas Greetings To Our Friends and Patrons!

WE extend our sincerest greetings of the holiday season to our patrons and friends who made possible for us the immense volume of business during the past year. We extend you the hand of friendship and wish you all good luck and prosperity during the coming year and hope that you may always be with us in your "hour of need."

THE BERGER MANUFACTURING CO., CANTON, OHIO
BOSTON, NEW YORK, PHILADELPHIA, ST. LOUIS

Theo. Becker, Geneseo, Illinois, writes: "You may leave out our want ad. for help, as we now have a full force. We are very thankful to you, as it was through your want columns that we were enabled to get good men, and we got them quick."

None Better than IWAN'S
If There Were We Would Be Making Them

Our Volcano Revolving Chimney Tops, Wire Conductor Pipe Hangers, Post Hole Augers and Diggers, Drain Cleaners, Serrated Hay Knives, etc., are unexcelled in all that constitutes first-class goods. Your jobber or we will quote prices on application. Manufactured by

Iwan Brothers
Streator : Illinois

Locations for Industries

Erie Railroad Chicago to New York

The Erie Railroad Company's Industrial Department has all the territory traversed by the railroad districted in relation to resources, adaptability, markets and advantages for manufacturing, and can advise with manufacturers in relation to the most suitable locations. The information furnished a manufacturer is reliable and has practical bearing on the nature of his particular industry.

Vast deposits of anthracite and bituminous coal, oil, natural gas—fuel is the paramount factor in manufacturing—sewer pipe, fire and other clays, cement material, gypsum, building stone and numerous other resources exist on the line.

It is important in this age of modern facilities for manufacturers to locate where they can obtain side tracks so as to receive from and ship directly into cars at the factory. Information can be promptly furnished in this connection about every point on the system between New York and Chicago.

The undersigned will be pleased to furnish full information to manufacturers and local parties contemplating the establishment of new industries.

Address, **LUIS JACKSON,**
Industrial Commissioner
Erie Railroad Company,
21 Cortlandt Street, New York

AMERICAN SHEET & TIN PLATE CO. APOLLO v BEST BLOOM TRADE MARK REGISTERED
PITTSBURGH

The Man Who Puts Up "APOLLO Best Bloom" Galvanized Sheets

will never take them down. Their easy working qualities, perfect coat and extremely long life have long ago made them the Sheet Metal Workers' favorite. A saving in first cost is not all; long life is not all, but the "Apollo" combination of the two, leaves nothing to be desired. Try "Apollo" Galvanized Sheets once and see for yourself. Ask your jobber for them, or write us, if he cannot supply your wants.

AMERICAN SHEET & TIN PLATE COMPANY
Frick Building. Pittsburgh, Pa.

To Our Friends and Patrons:

WE wish to thank you for your patronage during 1904, and trust that you have been prosperous. We hope that you may be more abundantly blessed during 1905.

We wish you a Merry Xmas and a Happy New Year.

"The Metal Ceiling Makers."

THE CANTON STEEL ROOFING CO., Canton, O.

A SUITABLE LOCATION

for any physician, professional or business man as well as any industry is easily found by consulting the Industrial Department of this Company.

The proposition submitted will be attractive, embodying full information, such as will enable intelligent action in such an important matter as change of location.

Our monthly magazine of Southern Opportunities will prove invaluable to those interested in the South.

THE LAND OF MANATEE

is the most beautiful section of the world, recently discovered by the Seaboard.

The climate is delightful, winter and summer, the atmosphere salt-laden and perfumed by the odor of thousands of blossoming orange, lemon, grape fruit and guava trees, and most beautiful and fragrant of flowers.

A land of perfect health and plenty, ideal living, where crime, trouble and ill-health are positively unknown. Cultured, refined people. Manatee booklets free on request.

The most costly piece of literature ever issued by a railroad is the special southern edition of the Seaboard Magazine of Opportunities—yes, there is one for you. It is unique, contains no advertisements, and little reading matter. Embodies numerous full page photo-gravures, the most exquisite examples of modern printers' art. It would command fifty cents from booksellers.

Sent free upon receipt of ten cents for postage.

J. W. WHITE

General Industrial Agent, Portsmouth, Va.

SEABOARD AIR LINE RAILWAY

ROOFING SLATE

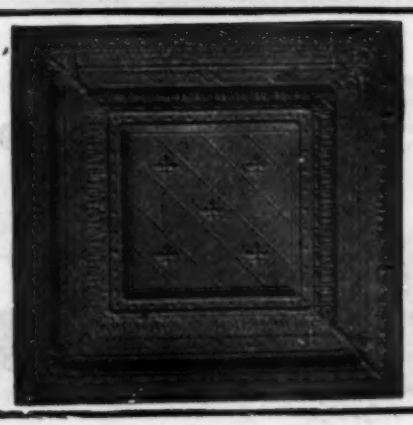
SLATE BLACKBOARDS

E. J. JOHNSON & CO.

38 PARK ROW, NEW YORK

Quarries: PENNSYLVANIA AND VERMONT

Prices quoted delivered anywhere. Booklet and complete Price List on application. Wire inquiries given quick attention



FRIEDLEY & VOSHARDT

194-202 MATHER ST., CHICAGO.

Manufacturers of Sheet Metal Architectural Ornaments, Art Metal Ceilings, Zinc and Bronze Statuary, Finials, Cresting, etc. A full line of Roofing, Galvanized Iron, Corrugated Iron, Sheet Copper, Conductor Pipe, Galvanized Steel Tanks and Steel Signs.

SEND FOR CATALOGUE A 21.

ACETYLENE
The Graf GENERATOR

Insurance Permitted

Cheapest and Best Light in the world

With our perfect filter and double jacketed generators, the Graf makes pure cool gas, thus preventing carbonization. The Graf is the only machine on the market with the automatic feed from one generator to the other, also the only machine with the automatic indicators, which let you know when either generator is exhausted. For further information write

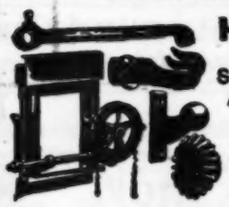
Acetylene Light & Heat Co.
7 to 17 E. Water St., Cincinnati, O.

Tools for Sheet Metal—Shears, Punches and Forming Rolls.
BERTSCH & CO.,
Cambridge City, - Indiana.

4 Trains a Day
via the
MONON ROUTE
CHICAGO INDIANAPOLIS & LOUISVILLE RAILWAY
and C. H. & D. Ry.
Only 8 Hours
from
CHICAGO
to
CINCINNATI
BY DAY, Parlor and Dining Cars
BY NIGHT, Palace Sleeping and Compartment Cars.
CHAS. H. ROCKWELL, Traffic Manager. FRANK J. REED, Gen. Pass. Agt.
200 Custom House Place, CHICAGO

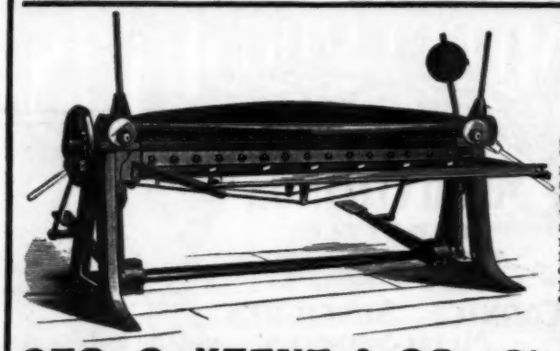
Combined Punch and Shears.

Tools for Sheet Metals
INCLUDING
Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery
MADE BY
NIAGARA MACHINE & TOOL WKS., Buffalo, N.Y.



H. WEISS & CO.
20 CLIFF STREET, NEW YORK.
SKYLIGHT GEARING AND CHAIN LIFTS
TINSMITHS' & PLUMBERS' TOOLS.
CORNICE MAKERS' TOOLS.
COPPERSMITHS' TOOLS.
PIPE THREADING MACHINES.

KEENE'S COMBINED SQUARING SHEAR AND CORNICE BRAKE.



Designed for Cornice and Skylight work.

It has an unlimited squeezing power for locks. The upper jaw is dished to make folds. The shear is attached to the back of the brake and is operated with levers. The blades are attached in such a manner as not to interfere with the usual work of the brake. All the parts are well made and cannot get out of order.

Write for catalogue.

GEO. C. KEENE & CO., Cincinnati, O.

DIES AND STAMPINGS TO ORDER
FOR STEEL RANGE AND FURNACE MAKERS
Hardware Specialties, Etc., Manufactured to Order.
Send Samples of Drawings for Estimates. WRITE FOR OUR BOOKLET.
THE GLOBE MACHINE & STAMPING COMPANY
971 Hamilton Street, CLEVELAND, OHIO

ORNAMENTAL PIPE STRAPS
The most perfectly cut and brightest tinned straps ever sold. **Malleable and Wrought Hooks**, quality the best that can be made. Full line of Valves and Plungers. Ask for samples, catalogue and prices.

BERGER BROS. CO.
Office and Stores: 237 Arch St. Warerooms: 100-02-04 Bread St. Factory: 3114-16-18-20 N. 17th St.
PHILADELPHIA

A Stagnant Cesspool

No. 1 Size Hotel.

isn't particularly inviting for bathing purposes; yet almost every housekeeper is obliged to wash her hands in putrid, greasy slop water.

White's Patent Mop Wringers

do away with all the filthiness of floor washing. There's a ready market. They sell because there's an actual demand.

Family and Hotel Sizes. Get a booklet.

M. KAVEL & COMPANY
Western Agents
170 Mason St., MILWAUKEE, WIS.

The EXCELSIOR CARPET STRETCHER and TACK HAMMER Combined

OVER 500,000 IN SERVICE PROVE ITS MERITS. SOLD BY HARDWARE DEALERS.

Withdrawn from Catalog Houses

THE most complete machine for putting down carpet, either by Housekeeper or Expert, yet invented. Stretches smoothly and evenly; holds securely while operator detaching hammer, has both hands free to arrange and tack. Hammer being part, saves hunting up, as with other Stretchers. Easy to operate, inexpensive. Each in a neat box. "The Housekeeper's Friend." Postal brings retailer Display Card Free.
Ask your jobber for the "Excelsior" or write

SELLS ON SIGHT.

R. W. MONTROSS,
Sole Manufacturer GALIEN, MICH.

SPERRY'S SUGAR KETTLES

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS Batavia, Ill.

FOX SHAVING SETS

Every article in this set is guaranteed. The razor is a Fox, which is known all over as the best made. It retails for $3.

FOX CUTLERY CO.
DUBUQUE, IOWA

8¼ inches long. Jaws take from 1/16 to ¾. Cuts bolts for pump rods.

SPECIAL WRENCH FOR PUMP RODS.

Everyone buys HAWKEYE WRENCH on sight; all that's necessary to sell it is to show it. It should be in every Hardware Store. Be the FIRST in your town to have it in stock.

Will Remove "NEVERSLIP" and "ROWE" Calks
The Best Wrench Made

Has more uses than any wrench made. You can't break the jaws off this wrench.

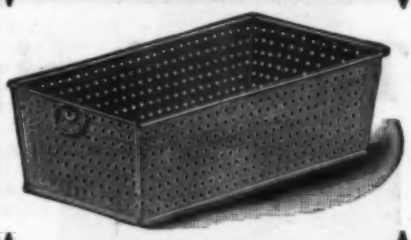
Sold by all jobbers

HAWKEYE WRENCH CO.,
Mfrs., MARSHALLTOWN, IA.

Made in two styles—different size thread for pump rods.

600 Different Specialties

Household Inventions and Bath Fixtures



If you haven't our Catalog write at once.

Silver's, Brooklyn
304-314 Hewes St. 432 Broadway
BROOKLYN, NEW YORK

Bolt and Screw Cases

Save Time and Money

A necessity for Hardware Dealers, Machine Shops, Pattern Shops and in fact any one who handles small articles; last indefinitely. Send for descriptive booklet.

AMERICAN BOLT AND SCREW CASE CO.
Dayton, Ohio U.S.A.

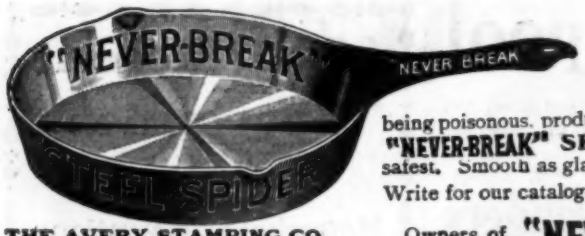
E. H. TITCHENER & CO.

Headquarters for
STAPLES AND THINGS.
Binghamton, N.Y.
and 42 N. Peoria St., CHICAGO.

The Cracker Jack Claw Hammer

Nine inches long; nickel plated claw head; varnished and polished hickory handle; very handsome; very durable; a supreme seller.

FRANKLIN SPECIALTY CO., Reading, Pa.
5, 10 and 15 cent hardware articles our specialty.
Chicago office, 166 Lake Street.



DISEASE BRED IN THE KITCHEN

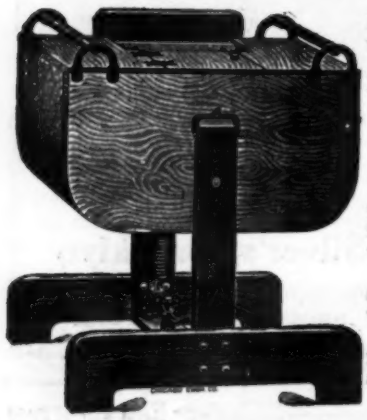
Cast Iron Pans and Pots; and Cheap Enameled Utensils the cause. The former porous, soak up grease, juices and flavors, and as they can not be kept clean are odorous and unsanitary. The latter chip off into food and being poisonous, produce the bowel and stomach troubles told in medical journals and newspapers. **"NEVER-BREAK" SEAMLESS STEEL COOKING UTENSILS** are best because safest. Smooth as glass, impervious, always clean, sweet and pure. Do not handle other kinds. Write for our catalogue of **"NEVER-BREAK"** wares all made of steel.

THE AVERY STAMPING CO.
Cleveland, Ohio.

Owners of **"NEVER-BREAK"** Trade-Mark

Mfrs. Pressed Steel Specialties, Shovels, Spades and Scoops.

The Principle of Washing To-Day



Is to agitate clothes and water to the highest degree in the quickest time with the least labor.

None can compare on these points with our "Spring Balance Washer" for we have

Powerful Coil Springs, Correct Balance, Instantaneous Action and Terrific Concussion.

And with a skillful mechanical staff we have perfected the above combined principles which were drawn up and fully endorsed by the most successful and experienced washing machine expert and inventor in America.

We are proud of this machine, for it is easy, rapid and thorough in its work, and we guarantee your customers will be pleased with it.

Our methods are straight-forward and brief, we do not annoy with foolish offers but our prices and terms are right and of great interest to you.

Further information on request.

J. H. CRAMMOND, Manufacturer, Waukegan, Ill.

"PULLMAN" Sash Balances

Are you selling them?

IN USE EVERYWHERE

Look for the Metal Tapes in all new Buildings.

Folder No. 2 sent free.

PULLMAN MFG. CO., ROCHESTER, N. Y., U. S. A.

Any dealer can be master of the trade if he handles our

IMPROVED SCHROEDER ROTARY ROLLER GEARING WASHER.

Has no clutches, springs or trigger to get out of order. Nothing to break, always in gear, runs backward or forward. Made of the best material.

A sample washer will prove to you that we have a trade winner. Write for particulars.

The Benbow-Brammer Mfg. Co., ST. LOUIS, MO.

Persistent Advertising

One who watches carefully the pages of general advertising mediums is struck by two things; the persistency with which those advertisers who are recognized as successful maintain their advertising week after week, month after month, and year after year; they never seem to abate their effort, and apparently the volume of their business increases steadily. The other thing noticeable is the large number of advertisers who thrust their announcements above the surface for a little while and then sink into oblivion. They either had not merit as a basis for their claims or they did not possess the skill to steer their enterprise successfully, or else they lacked the nerve to put forth proper effort.—*Advertising Experience.*

STEEL has superseded WOOD

It is a recognized fact that steel is being used as a substitute for wood in the construction of innumerable articles and for purposes for which wood was thought to be the only practical material.

Particularly is this true in cases where it is desired to acquire the utmost *strength* and *durability*, where *wearing* and *lasting* qualities are essential, where *weight* is a consideration, and where *sanitary* conditions are required.

Tanks, wells, vats, windmills, pans, pails, bushel baskets, washtubs, etc., are being made of galvanized steel where formerly only wood was used.

We are making a *Galvanized Steel Washing Machine.* It will not shrink, warp, leak, rot, break, splinter, fall to pieces, smell or lodge dirt and disease germs as wooden machines do. It will outlast at least three wooden machines. It is not necessary to keep water in it when not in use. It is the *simplest* and most *easily operated* machine sold. It is *light, neat* and *attractive.* The increasing demand for our machine during the past three years demonstrates that it is satisfactory to the consumer and a money-maker for the dealer.

We do not sell to catalog houses nor to the consumer direct. We give *exclusive agencies.* If we have no dealer in your town we want one.

Sample machine sent on approval—*Free.*

Write us for information and for our new illustrated catalog.

UNITED STATES WASHING MACHINE CO., 1532 Junction Ave., Racine, Wis.

SUNSHINE "ALUMYNOID" WASHING MACHINES

THE "WHITE DASHER" LINE

Burner Boiling Water
With Washer in Operation

The phenomenal demand from every section of the country and from every class of men has delayed our shipments somewhat. We have increased our facilities and are now in a position to fill orders promptly.

Remember. "Alumynoids" are absolutely rust-proof; the water may be boiled with washer in operation; we permit only one agency in a town.

White Porcelain
Enameled Iron Dasher
Note Balance Wheel

QUINCY WASHING MACHINE CO.,
QUINCY, ILL.

Peoria Washing Machines

Best in the Market—Made With Ball Bearings

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.

Send for Catalogue. Secure the Agency.

CLARK, QUIEN & MORSE
PEORIA, ILLINOIS

C. De Witt Wagner, 40[illegible] Third Ave., Cedar Rapids, Ia., writes: "Please accept my thanks for your help in securing a tinner for me. I had letters from several states which goes to show that The Artisan is read."

We Wish You All

A MERRY CHRISTMAS
AND
A HAPPY NEW YEAR

White Lily Washer Co.

TOLEDO, OHIO — DAVENPORT, IOWA

The O. K. Washing Machine

has been on the market for more than six years and the constantly increasing sale proves that it is giving satisfaction.

Well made and fully guaranteed.

Every one sold sells another. TRY IT.

H. F. BRAMMER MFG. CO.,
Davenport, Iowa.

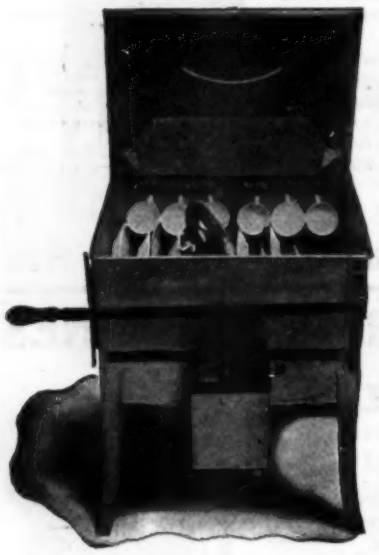
SANITARY DISH WASHER

Suitable for family, restaurant or hotel use.

Is the first practical dishwasher for family use ever offered to the public. We challenge the world to disprove our claim.

POINTS OF MERIT OF THE SANITARY DISH WASHER.

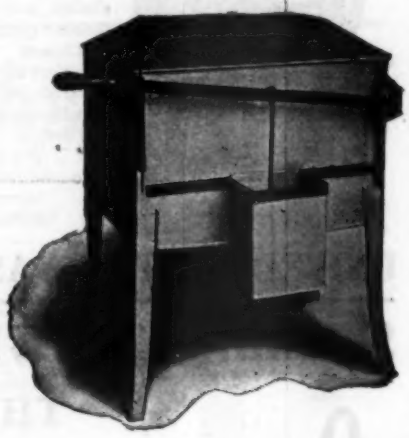
It washes and dries the most delicate china or crockery tableware in three to five minutes. It also washes knives, forks, spoons and glassware, etc. The water used is hot, much hotter than it is possible to use by hand, instantly removing all grease and dirt, just as surely as it would take the skin off the hand, leaving the dishes, as its name implies, in a clean, sanitary condition.



The dishes in process of being washed are not moved, and with ordinary care cannot be broken, cracked or chipped.

Washing dishes in the old way does more to chap and redden the hands than all other housework combined. There is no wetting the hands in using the Sanitary Dish Washer. It requires no more water than by hand-washing, and thoroughly cleans itself while in operation.

Hundreds of thousands of washing machines, wringers and sewing machines have been sold to be used once a week or once a month. **The Dish Washer is used three times a day.**



QUESTION—Your wife or daughter, if she does her own work, takes up two hours each day with dishwashing. This means in one year 90 working days. Do you want your wife or daughter to spend 90 days out of 365 in the dish-pan?

ANSWER—I have never interfered withi the kitchen management but I do know that there is no housework so unpleasant to my wfe or daughter than dishwashing, and I do not blame them. This great humanitarian invention solves the kitchen problem, and will do more to promote and build up the familv, lessen divorces and make home that happy place the All Wise intended it to be than all the letters President Roosevelt could write on the subject.

We want reliable and aggressive agents in every state to introduce and sell those washers.

Write for circulars, testimonials and prices.

THE FREEMAN STAMPING CO.

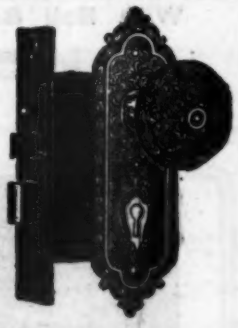
PONTIAC, MICHIGAN

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO

MANUFACTURERS OF **LIGHT GRAY IRON CASTINGS**

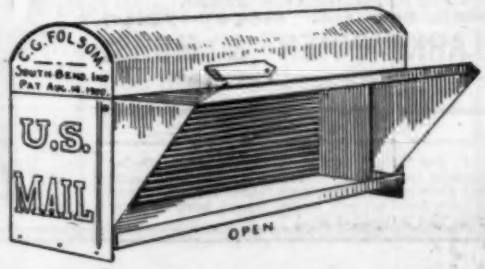
Builders' Hardware, Dampers and Damper Clips, Oil and Gas Stoves, Furnace Lamps, Molasses Gates, Letter Boxes, Hardware Specialties.



LETTERS CAN'T GET WET

"Ideal Rural Mail Box"

The door opens from the bottom, forming a canopy over the inside. Water cannot penetrate even in the severest weather. The lock boxes have master key spring locks which are riveted on. **There are no two locks alike.** The carrier has master key to unlock all.



Approved by Postmaster-General

C. G. FOLSOM, South Bend, Indiana

MENTION THE AMERICAN ARTISAN.

From the Dealer's Standpoint

the best thing about the

GEM MAIL BOX

is that it gives absolute satisfaction to his trade—it creates confidence in the balance of the goods he handles—it helps bring other business to his store.

Sells readily at $1.25.
Liberal discount to the trade.
Specify the GEM when ordering of your jobber.

We would be glad to send a little booklet on "HOW TO DO IT" to dealers who want to capture the mail box trade.

C. A. Peck Hdw. & Mfg. Co.
BERLIN, WIS.

BURGLAR PROOF

Sash Lock and Ventilator

Permits the sash to be raised from the bottom or lowered from the top about six inches for desired ventilation without sacrificing security from entrance by burglars.

It is impossible to reach over the partially opened window with the hand, a pronged stick or anything else to unlatch the bolt.

The window can not be raised or lowered with a crowbar in either opened or shut condition.

No "jimmy," knife-blade, or any other device will open *this* lock.

It can only be operated from the INSIDE of the room.

To attach it no cutting of sashes is necessary.

It is the only absolutely burglar-proof ventilator lock in the market, and is enthusiastically endorsed by Architects, Builders, Dealers and consumers.

Retail Price, 25c.

Screws and description included. Several finishes.

Samples sent free to dealers on application. Write for wholesale prices and terms.

SAFETY WINDOW LOCK & VENTILATOR CO.,
17-21 Quincy St., CHICAGO, ILL.

LIVE SALESMEN WANTED.

This Label on all Taplin's Pat. Improved **Dover Egg Beaters** stands for **Quality and Durability.**
THE TAPLIN MFG. CO., New Britain, Conn., U.S.A.
156 Chambers St., New York.

CHAS. F. MALONE,
ROLFE, IA.,
WRITES:

"If I went to South Africa I would want The American Artisan sent to me."

THE IMPROVED FARMER'S FRIEND CREAM SEPARATOR.

Made of heavy tin plate and the bottom inclines to the outside, preventing any disturbance to the cream. Separates milk and cream perfectly.

THE BLANKE & HAUK SUPPLY CO.,
202-204 Market St., St. Louis, Mo.

MAKE MORE MONEY

SIGNAL MAIL BOX CO.,
106 BENTON ST., JOLIET, ILLINOIS.

Smith's Improved Cream Separators

Smith's Grand Cream Separator.

Superior in workmanship and material, giving complete satisfaction to dealer and customer.

Equipped with **Our New Gauge**, which any one can remove, and replace new glass. Inner can may be removed, while the water remains in outer vessel. Inner can has concaved trough bottom, double seamed, also double seamed bottom in outer tank. Removable cone shape strainer in cover.

Simple arrangement for removing inner can; nothing to get out of order.

Write us now for complete information and prices.

SMITH BROS. MFG. CO.
257 to 261 S. Meridan St. INDIANAPOLIS, IND.
246 E. Kinzie St. CHICAGO, ILL.

THE POPULAR LINE

with three elegant trains each way between Chicago and

LaFayette, Ind., Indianapolis, Ind., CINCINNATI, OHIO Louisville, Ky., and all points in the **SOUTH AND SOUTHEAST** is the

BIG FOUR ROUTE

Buffet Parlor Cars, or Dining Cars on day trains and Pullman's finest Compartment and Standard Sleepers on night trains. All trains run solid, Chicago to Cincinnati. For reservations, etc., call on or address **J. C. TUCKER,** Gen'l Northern Agt., **238 S. Clark St., CHICAGO, ILL.**

MINIATURE TOOLS

Perfect Working Model Wrenches, and also Pistols that shoot real cartridges; can furnish you Nail Hammers, Machinist's Hammers, Cleavers, Saws, Razors, etc.

SEND IN YOUR ORDERS

Send for Miniature Tool Section of the Green Book of Hardware for particulars.

SMITH & HEMENWAY CORP., Ltd.
DAVISON MFG. CO., 296 Broadway, New York City

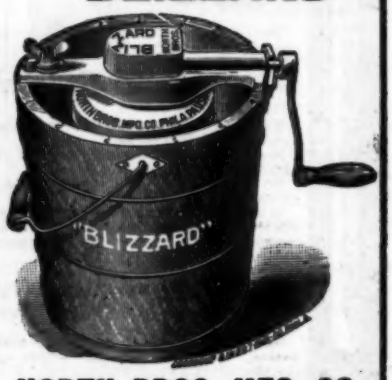
No Dust, No Dirt

Pleases everybody
Quick Seller
Order at once to insure prompt delivery.
Send for prices

HILL DRYER CO.
Worcester, Mass., U. S. A.

"LIGHTNING" AND "BLIZZARD"

FREEZERS



THEY ARE
Well Advertised,
In Demand,
Easily Sold,
Satisfactory in Use,
Of Known Reputation.

THEY EXCEL IN
Easy Running,
Quick Freezing,
Economy,
Convenience,
Practical Results.

NORTH BROS. MFG. CO.
PHILADELPHIA, PA.

MANUFACTURERS

Contemplating establishing plants in the West should take advantage of a location on

THE NORTH-WESTERN LINE
C.&N.W.RY.

Chicago & North-Western Ry.

which reaches the famous

Water Powers, Coal Fields, Iron Ore Ranges, Hard and Soft Lumber Districts

of the West and Northwest, and affords the best means of transportation to the markets of the world. For further particulars apply to

MARVIN HUGHITT, Jr. — Freight Traffic Mgr.
E. D. BRIGHAM — Gen'l Freight Agent
CHICAGO

Hurwood Tack Puller

HURWOOD

IT GETS THEM BY THE HEAD.
Best crucible ¼ inch steel, hand forged and tempered.
Our catalogue describes others.
THE HURWOOD MFG. CO., Bridgeport, Conn.

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SACINAW, MICH.

THE ECLIPSE AKRON SPIRIT LEVEL

Sent to all dealers on approval. Write for our new illustrated catalog and prices.

Manufactured by THE BAKER McMILLEN, COMPANY, AKRON, OHIO

HOES

Cotton and Field Hoes with Hercules Handle.

Street Cleaning Hoe with Heavy Ash Handle

Handled Grape Hoe

Planters Hoes, Scovil Pattern Hoes, Set Hoes, regular finish, or Lyndon style, oil finish.
The Original German Handled Hoes
German Handled Tobacco Hoes
Grub Hoes, Handled Grape Hoes
Rice Hoes, Hilling Hoes
Cotton and Field Hoes
Cotton Scraping Hoes
Giant Pattern Hoes
Street Cleaning Hoes
Steel Laid Hoes
Steel Laid Cotton Planters Hoes

Sandusky Tool Co., Sandusky, O.

"QUALITY"

is synonymous with **"OHIO"** when the latter is found stamped on a tool. The Progressive Hardware Man will find our line a highly satisfactory one to handle—all tools are fully guaranteed.

Write for our Catalogue, which includes **Planes, both Iron and Wood, Chisels, Gouges, Drawing Knives, Auger Bits, Bench and Hand Screws, Etc.**

WE DO NOT SELL CATALOGUE HOUSES

OHIO TOOL COMPANY

Factories: COLUMBUS, OHIO; AUBURN, N. Y

Samples, by reg. mail $2.00 each.

CUTS 1-4 SIZE.

COMBINATION **RULE**

Spirit Level, Square, Plumb, Bevel, Inclinometer, or Slope Level, Brace Scale, Protractor, Right Angle Triangle, etc.

UNION FACTORY. Lock Drawer 15.

The **CHAPIN-STEPHENS CO.**

PINE MEADOW, CONN., U. S. A.

Annual Message to the "Elect"

Another year is almost ready to close up shop and quit business.
A year which has been filled to the brim with good things.
As we review it, month by month, we are struck with the progress which is evident on every hand.
With the great number of those who have joined the "elect" and who have in this way availed themselves of us and the
Honest Hardware
we promised to give them—and did.
We are better for what the year has done for us and for what it has given us.
And those who have come through it with us are better, too.
Good goods promptly delivered are never amiss.
We discovered it long ago—maybe you have—but, if you have not, we hope that this reminder of ours will be instrumental in helping you make the discovery during the year to come.
In any event, here's to the triumphs of the old year and success to the conquests of the brand new one which will soon be clamoring for acquaintance.
So when you make your usual resolutions, add another and let it cover
Good Hardware
and don't break it.

Farwell, Ozmun, Kirk & Co.

ST. PAUL MINNESOTA

Wholesale Hardware Dealers

$25 ON 5 TON

Is what you can save

We make all kinds of SCALES.

WRITE FOR PRICES

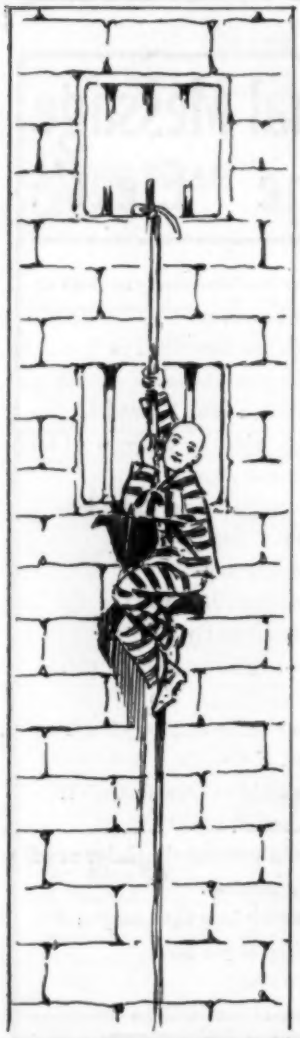
Also B. B. PUMPS and WIND MILLS

BECKMAN BROS., Des Moines, Ia.

STANLEY RULE AND LEVEL CO.

IMPROVED CARPENTERS' TOOLS

Sold by All Hardware Dealers NEW BRITAIN, CONN.



No. 27117

soliloquized thusly to himself as he slid down the rope :

"I knowed my getaway was one skinch when Bill shoved me dat Disston file, coz rapid work wid no breakdowns was de only game, see ?"

The honest mechanic at his daily toil, like the callous crook drilling his way to freedom, needs a file on whose **quality** he can depend. Where hard work is to be done not only the man behind the file but the file itself must be considered, and it is to this fact that **Disston file quality** owes its widespread popularity. This popularity makes it an easy seller for the hardware dealer. He does not have to talk quality where it is already recognized. Are you getting your share of this benefit of the Disston reputation for quality, Mr. Dealer ? If not why not make a memo in your want book and also write us for catalogue !

HENRY DISSTON & SONS

Keystone Saw, Tool Steel and File Works

PHILADELPHIA, PA.

Meat and Food CHOPPERS

40 Sizes and Styles for Hand and Power from $1.00 to $300.00

No. 2, $1.50

No. 5, $2.00

No. 12, $2.75

"ENTERPRISE" FOOD CHOPPERS

TINNED

No. 100 Chops 2 lbs. of Meat per Minute, $1.50
No. 300 Chops 3 lbs. of Meat per Minute, 2.25

FOUR KNIVES WITH EACH MACHINE

Fine Medium Coarse Nut-Butter Cutter

Order from your Jobber Illustrated Catalogue Free

The Enterprise Manufacturing Co. of Pa.

Philadelphia, U. S. A.

N. Y. Branch, 10 Warren St. San Francisco Branch, 105 Front St.

Rapid Grinding and Pulverizing MILLS

40 Sizes and Styles for Hand and Power from $1.25 to $300.00

NO. 3, $5.50

Meat Juice Extractor

No. 21, $2.50

Sausage Stuffers and Lard Presses

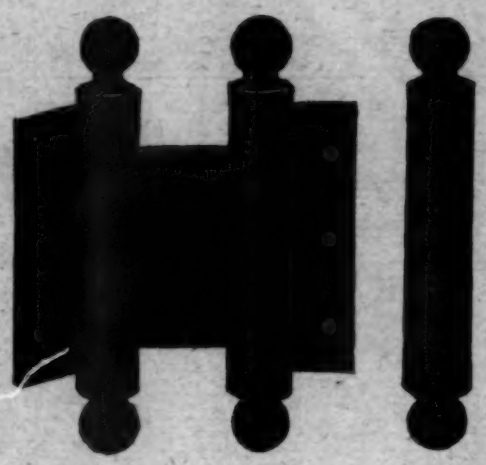
8 Sizes and Styles

No. 25, $5.50

"COLUMBIAN"

TRADE MARK

The New Spring Hinge



To convince you of the superiority may we not have a sample order for "Columbian" Sheet Metal Hinges, Single and Double Acting?

The Columbian Hardware Company

CLEVELAND, OHIO

NEW YORK SAN FRANCISCO CHICAGO LONDON

McClure's Roofing Tin

Better values for your money in roofing tin than you've ever had before. **Let us prove it.** Write for samples and prices.

The McClure Co.
Pittsburgh Philadelphia

OSGOOD STANDARD SCALES

Ask your jobber about them.

FURNACES AND FURNACE SUPPLIES

Stockhoff Supply Co.
ST. LOUIS

BRADLEY SHELF BRACKETS

STRONG, LIGHT AND ALL RIGHT

Atlas Mfg. Co., New Haven, Conn.

Tinners Find Employment
By advertising and using
THE POWERS AUTOMATIC CHIMNEY TOPS

They make chimneys draw, give Tinners employment making stocks, and give the dealers profit. Sold by Hardware Jobbers and Dealers. Made only by

POWERS BROS.
Streator, - Ill.

This cut free to dealers.

The "CENTENNIAL" RAIN-WATER CUT-OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single Cut-off made to fit CORRUGATED and Plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Patent applied for.

Manufactured only by
COONEY & GEIGER,
19 and 21 E. South St.
INDIANAPOLIS, IND.

Our line of METAL CEILINGS

isn't excelled in completeness, attractive designs, or reasonable prices.

If you're interested in Metal Ceilings, send for our special Metal Ceiling Catalogue—a book illustrating our entire line, in which you are sure to find designs to suit your taste.

Our prices are also attractive. Write for them.

ILLINOIS ROOFING & SUPPLY CO.
23 Lake Street, CHICAGO.

STEVENS
Rifle Telescopes

Represent the summit of excellence and their moderate prices ($8.00 to $42.00) place them within the reach of everybody.

Once used—always used.

Every dealer should carry these 'scopes in stock. Send for beautiful 32-page catalog and particulars.

J. Stevens Arms & Tool Co.,
197 Main Street,
Chicopee Falls, Mass., U. S. A.

Stay-In Flue Stoppers

Brass finished. Nicely decorated. Cannot be jarred or blown from flue hole. Guaranteed to be soot proof.

PERFECTION Cake Mixer

Made of No. 16 steel. It's one of the best articles on the market. Almost everybody thinks so.

STUBER & KUCK, Peoria, Ill.
Manufacturers of Pieced Tinware and all styles of Flour Sifters.

The "GLOBE" Ventilator

in BRASS, COPPER, GALVANIZED IRON, and with Glass Tops for Skylight purposes.

For Perfectly Ventilating Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

SMOKY CHIMNEYS CURED.

"GLOBE" Ventilated Ridges. Send for Pamphlet.

Manufactured by
GLOBE VENTILATOR CO., Troy, N.Y.

ATKINS HIGH GRADE SILVER STEEL HAND SAWS

GOOD FOR THE DEALER — GOOD FOR THE MECHANIC — TRADE WINNERS

If It's Silver Steel It's an ATKINS

ATKINS ALWAYS AHEAD

Branches:
MEMPHIS, TENN.
ATLANTA, GA.
NEW YORK CITY
TORONTO, CANADA

Get Our Catalog—It's a Necessity—Free

E. C. ATKINS & CO.,
Indianapolis, Ind.

Branches:
N. E. Canal St. CHICAGO, ILL.
MINNEAPOLIS, MINN.
PORTLAND, OREGON
SEATTLE, WASH.